DRAFT

PERMIT NUMBER:
LA0032794

AGENCY INTEREST
NUMBER: AI 30293

ACTIVITY NUMBER:
PER20060001

DEQ
LOUISIANA

OFFICE OF ENVIRONMENTAL SERVICES

Water Discharge Permit

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

Town of Vidalia
Wastewater Treatment Plant
Post Office Box 2010
Vidalia, LA 71373

Type Facility: existing publicly owned treatment works serving the City of Vidalia

Location: on Logan Sewell Drive at the Vidalia Drainage Canal in Vidalia, Concordia Parish

Receiving Waters: Mississippi River

to discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III attached hereto.

This permit shall become effective on

This permit and the authorization to discharge shall expire five (5) years from the effective date of the permit.

Issued on **DRAFT**

Chuck Carr Brown, Ph. D.
Assistant Secretary

GALVEZ BUILDING • 602 N. FIFTH STREET • P.O. BOX 4313 • BATON ROUGE, LA 70821-313 • PHONE (225) 219-3181

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through the expiration date of the permit the permittee is authorized to discharge from:

Outfall 001, treated sanitary wastewater (design capacity is 1.5 MGD).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic		Discharge Limitations (lbs/day)	Discharge Limitations other units (specify)		Monitoring Requirements	
	Storet Code	Monthly Avg.	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type
Flow-MGD	50050	---	Report	Report	Continuous	Recorder[1]
BOD_5	00310	375	30 mg/l	45 mg/l	2/week	6 Hr. Composite
TSS	00530	1,126	90 mg/l	135 mg/l	2/week	6 Hr. Composite
Fecal Coliform colonies/100ml [2]	74055	---	200	400	2/week	Grab
pH (Standard Units)[3]	00400	---	---	---	2/week	Grab

Whole Effluent Toxicity Testing [4]

		Quality (Percent % UNLESS STATED)			
Biomonitoring [4]	Storet Code	Monthly Avg. Minimum	48-Hour Minimum	Measurement Frequency	Sample Type
Daphnia pulex	TEM3D	Report[5]	Report[5]	1/year	24-Hr Composite
	TOM3D	Report	Report	1/year	24-Hr Composite
	TQM3D	Report	Report	1/year	24-Hr Composite
Pimephales promelas	TEM6C	Report[5]	Report[5]	1/year	24-Hr Composite
	TOM6C	Report	Report	1/year	24-Hr Composite
	TQM6C	Report	Report	1/year	24-Hr Composite

If a test failure has occurred and the required retests have been performed, the test results are to be reported on the DMR as follows:

Biomonitoring [4]	Storet Code	Monthly Avg. Minimum	48-Hour Minimum	Measurement Frequency	Sample Type
Retest #1	22415	Report[5]	Report[5]	As Required[6]	24-Hr Composite
Retest #2	22416	Report[5]	Report[5]	As Required[6]	24-Hr Composite

[1] Includes totalizing meter or totalizer.

[2] See Part II, Section A, Paragraph 10

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

[3] The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

[4] See Part II, Whole Effluent Toxicity Testing Requirements.

[5] Species Quality Reporting Units: Pass = 0, Fail = 1

[6] Monthly Testing Required only if routine test for reporting period (for either species) fails.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location:

Outfall 001, at the point of discharge from the last treatment unit prior to mixing with other waters.

PART II

OTHER REQUIREMENTS

In addition to the standard conditions required in all permits and listed in Part III, the office has established the following additional requirements in accordance with the Louisiana Water Quality Regulations.

SECTION A. GENERAL STATEMENTS

1. LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Water quality studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5mg/L $CBOD_5$ and 2 mg/L NH_3-N. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

2. This permit does not in any way authorize the permittee to discharge a pollutant not listed or quantified in the application or limited or monitored for in the permit.

3. Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damages to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.

4. For definitions of monitoring and sampling terminology see Part III, Section F.

5. In the event that an unauthorized discharge into the Mississippi River or any other waters of the state used for potable water supply within the State of Louisiana; from a permitted or unpermitted, licensed or unlicensed treatment works, operating facility, wharf, onshore riverside site, transport vehicle, or vessel; could reasonable be expected to interfere with or significantly impact downstream potable or industrial water usage, the discharger shall notify the hotline immediately, but in no case later than one (1) hour after learning of the discharge, by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) or other rapid communication means, in accordance with the notification procedures in Part III of this permit.

6. 24-hour Oral Reporting: Daily Maximum Limitation Violations

   Under the provisions of Part III Section D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

   Pollutants: None

7. As an exception to Part III Section D.6.e.(1), the permittee shall report all overflows in the collection system with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and the ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary). All other overflows and overflows which endanger human health or the environment must be reported in the manner described in Part III, Section D.6 of the permit.

8. In accordance with La.R.S.40:1149, it shall be unlawful for any person, firm, or corporation, both municipal and private, operating a water supply system or sewerage system to operate same unless the competency of the operator is duly certified to by the State Health Officer. Furthermore, it shall be unlawful for any person to perform the duties of an operator without

OTHER REQUIREMENTS (cont.)

being duly certified. Therefore, the Town of Vidalia should take whatever action is necessary to comply with La.R.S. 40:1149.

9. The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule:

   EFFECTIVE DATE OF THE PERMIT

10. Future water quality studies may indicate potential toxicity from the presence of residual chlorine in the treatment facility's effluent. Therefore, the permittee is hereby advised that a future Total Residual Chlorine Limit may be required if chlorine is used as a method of disinfection. In many cases, this becomes a NO MEASURABLE Total Residual Chlorine Limit. If such a limit were imposed, the permittee would be required to provide for dechlorination of the effluent prior to a discharge.

11. DISCHARGE MONITORING REPORTS

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1 or an approved substitute). All monitoring reports must be retained for a period of at least three (3) years from the date of the sample measurement. The permittee shall make available to this Department, upon request, copies of all monitoring data required by this permit.

If there is a no discharge event at any of the monitored outfall(s) during the sampling period, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.

Reporting periods shall end on the last day of the month. Monitoring results for each month shall be summarized on a Discharge Monitoring Report (DMR) Form and submitted to the Office of Environmental Compliance on a monthly basis, postmarked no later than the 15th day of the month following each reporting period.

Permittees shall be required to submit DMRs according to the following schedule or as established in the permit:

For parameter(s) with monitoring frequency(ies) of **1/month or more frequent**:

Submit DMR by the 15th day of the following month.

For parameter(s) with monitoring frequency (ies) of **1/quarter**:

Monitoring Period	DMR Due Date
January 1-March 31	April 15th
April 1-June 30	July 15th
July 1- September 30	October 15th
October 1 – December 31	January 15th

For parameter(s) with monitoring frequency (ies) of **semi-annual**:

Monitoring Period	DMR Due Date
January 1-June 30	July 15th
July 1- December 31	January 15th

OTHER REQUIREMENTS (cont.)

For parameter(s) with monitoring frequency(ies) of **1/year**:

Monitoring Period	DMR Due Date
January 1- December 31	January 15th

Duplicate copies of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit shall be submitted to the Permit Compliance Unit at the following address:

Department of Environmental Quality
Office of Environmental Compliance
Enforcement Division
Post Office Box 4312
Baton Rouge, Louisiana 70821-4312
Attention: Permit Compliance Unit

12. In accordance with LAC 33:IX.2361.C.3, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301 (b) (2) (c) and (d); 304 (b) (2); and 307 (a) (2) of the Clean Water Act, if the effluent standard or limitations are issued or approved:

    A. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

    B. Controls any pollutant not limited in the permit; or

    C. Require reassessment due to change in 303(d) status of waterbody; or

    D. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

OTHER REQUIREMENTS (cont.)

SECTION B. STORMWATER DISCHARGES

1. This section applies to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow.

2. Any runoff leaving the developed areas of the facility, other than the permitted outfall(s), exceeding 50 mg/L TOC, 15 mg/L Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination, shall not be considered a violation of this permit. A visual inspection of the facility shall be conducted and a report made annually as described in Paragraph 4 below.

3. The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. EPA document 833-R-92-002 (Storm Water Management for Industrial Activities) may be used as a guidance and may be obtained by writing to the U.S. Environmental Protection Agency, Office of Water Resources (RC-4100), 401 M Street, S.W., Washington D.C. 20460 or by calling (202) 260-7786.

4. The following conditions are applicable to all facilities and shall be included in the SWP3 for the facility.

   a. The permittee shall conduct an annual inspection of the facility site to identify areas contributing to the storm water discharge from developed areas of the facility and evaluate whether measures to reduce pollutant loadings identified in the SWP3 are adequate and have been properly implemented in accordance with the terms of the permit or whether additional control measures are needed.

   b. The permittee shall develop a site map that includes all areas where stormwater may contact potential pollutants or substances that can cause pollution. Any location where reportable quantities leaks or spills have previously occurred are to be documented in the SWP3. The SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure stormwater precipitation will not directly contact the substances and result in contaminated runoff.

   c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

   d. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3 and the permit, and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspector(s), conditions found, and changes to be made to the SWP3.

   e. The summary report and the following certification shall be signed in accordance with LAC 33:IX.2503. The summary report is to be attached to the SWP3 and provided to the Department upon request.

      "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

      Signatory requirements for the certification may be found in Part III, Section D.10 of this permit.

OTHER REQUIREMENTS (cont.)

f. The permittee shall make available to the Department, upon request, a copy of the SWP3 and any supporting documentation.

5. The following shall be included in the SWP3, if applicable.
   a. The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:
      i. maintaining adequate roads and driveway surfaces;
      ii. removing debris and accumulated solids from the drainage system; and
      iii. cleaning up immediately any spill by sweeping, absorbent pads, or other appropriate methods.

   b. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.

   c. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.

   d. All waste fuel, lubricants, coolants, solvents, or other fluids used in the repair or maintenance of vehicles or equipment shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.

   e. All storage tank installations (with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area) shall be constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.

   f. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. All drains from diked areas shall be equipped with valves that shall be kept in the closed condition except during periods of supervised discharge.

   g. All check valves, tanks, drains, or other potential sources of pollutant releases shall be inspected and maintained on a regular basis to assure their proper operation and to prevent the discharge of pollutants.

   h. The permittee shall assure compliance with all applicable regulations promulgated under the Louisiana Solid Waste and Resource Recovery Law and the Hazardous Waste Management Law (L.R.S. 30:2151, etc.). Management practices required under above regulations shall be referenced in the SWP3.

   i. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility that materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

   j. If the SWP3 proves to be ineffective in achieving the general objectives of preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

6. Facility Specific SWP3 Conditions:

OTHER REQUIREMENTS (cont.)

a. **Site Map.** The locations of the following areas, where such areas are exposed to precipitation, shall also be included on the site map: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage and/or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides and pesticides.

b. **Employee Training.** At a minimum, must address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and controls; fueling procedures; general good housekeeping practices; proper procedures for using fertilizer, herbicides and pesticides.

c. **Potential Pollutant Sources.** The summary of potential pollutant sources must also list the activities and pollutants from the following areas: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage and/or hauled waste receiving station; and access roads/rail lines.

d. **Description of BMPs to be Used.** In addition to the other BMPs considered, the facility must consider routing storm water into treatment works, or covering exposed materials from the following exposed areas: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage and/or hauled waste receiving station.

e. **Inspections:** The following areas must be included in all monthly inspections: access roads/rail lines; grit, screenings and other solids handling, storage or disposal areas; sludge drying beds, dried sludge piles; compost piles; septage and/or hauled waste receiving station areas.

f. **Wastewater and Washwater Requirements.** If washwaters are handled in another manner other than the treatment works, the disposal method must be described and all pertinent documentation must be attached to the plan.

OTHER REQUIREMENTS (cont.)

SECTION C. MUNICIPAL WATER POLLUTION PREVENTION

Pollution Prevention Requirements

1. The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. A copy of the Environmental Audit Form has been attached to this permit. Please make additional copies to be utilized for each year of this permit. Additional copies can be obtained upon request.

   The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

   These reports shall discuss the following items:

   a. The influent loading, flow, and design capacity of the facility;
   b. The effluent quality and plant performance;
   c. The age of the wastewater treatment facility;
   d. Bypasses and overflows of the tributary sewerage system and treatment works;
   e. The ultimate disposition of the sewage sludge;
   f. Landfilling of sewage sludge and potential alternatives (if applicable);
   g. New developments at the facility;
   h. Operator certification and training;
   i. The financial status of the facility; and
   j. A subjective evaluation of conditions at the facility.

2. A resolution from the permittee's governing body shall be obtained as part of the Environmental Audit Report. This resolution shall include, at a minimum, the following:

   a. An acknowledgement that the governing body has reviewed the Environmental Audit Report;

   b. A description of actions that the permittee will take to maintain compliance with the permit conditions, and if necessary, include a schedule outlining major projects to be accomplished.

3. The Environmental Audit Report and the governing body's resolution must be signed by a duly authorized representative of the permittee and shall be maintained with the permit and permit related records (i.e. lab data, DMRs), and made available upon request by duly authorized regional inspectors and/or DEQ Headquarters representatives.

OTHER REQUIREMENTS (cont.)

SECTION D. CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;

   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. Any pollutant, including oxygen demanding pollutants (e.g., BOD5), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

   e. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

   h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under LAC 33:IX.Subpart 2.Chapter 61.

3. The permittee shall provide adequate notice of the following:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

   c. Any notice shall include information on (1) the quality and quantity of effluent to be introduced into the treatment works, and (2) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

OTHER REQUIREMENTS (cont.)

SECTION E. WHOLE EFFLUENT TOXICITY TESTING (48 HR ACUTE NOEC: FRESHWATER)

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO OUTFALL(S):	**001**
REPORTED ON DMR AS OUTFALL:	**TX1Y**
CRITICAL DILUTION:	**0.05%**
EFFLUENT DILUTION SERIES:	**0.02%, 0.03%, 0.04%, 0.05%, and 0.07%**
COMPOSITE SAMPLE TYPE:	**Defined at PART I**
TEST SPECIES/METHODS:	**40 CFR Part 136**

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. Test failure is defined as a demonstration of statistically significant lethal effects to a test species at or below the effluent critical dilution.

2. PERSISTENT LETHALITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent).

a. The permittee shall conduct a total of two (2) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The two additional tests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two additional tests in lieu of routine toxicity testing, unless the specified testing frequency for the species demonstrating significant lethal effects is monthly. The full report shall be prepared for each test required by this section in accordance with procedures outlined in item 4 of this section and submitted with the period discharge monitoring report (DMR)

OTHER REQUIREMENTS (cont.)

to the permitting authority for review.

b. If one or both of the two additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in item 6 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may be also required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

c. If one or both of the two additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall henceforth increase the frequency of testing for this species to once per quarter for the life of the permit.

d. The provisions of item 2.a are suspended upon submittal of the **TRE Action Plan**.

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.

ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Daphnia pulex survival test and Fathead minnow survival test.

iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited for the Daphnia pulex survival test and Fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA-821-R-02-012, or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all other concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

OTHER REQUIREMENTS (cont.)

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

A. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

B. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

A. a synthetic dilution water control which fulfills the test acceptance requirements of item 3.a was run concurrently with the receiving water control;

B. the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);

C. the permittee includes all test results indicating receiving water toxicity with the full report and information required by item 4 below; and

D. the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

i. The permittee shall collect two flow-weighted 24-hour composite samples from the outfall(s) listed at item 1.a above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.

ii. The permittee shall collect a second 24-hour composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the 24-hour composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first 24-hour composite sample. Samples shall be chilled to 0-6 degrees Centigrade during collection, shipping and/or storage.

iii. The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

OTHER REQUIREMENTS (cont.)

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in item 4 of this section.

4. REPORTING

a. A valid test must be submitted during each reporting period. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part III.C of this permit. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review. The permittee shall submit the first full report to:

Department of Environmental Quality
Office of Environmental Compliance
P. O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

b. The permittee shall report the following results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with Part III.D of this permit. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR. The permittee shall submit the Table 1 Summary Sheet with each valid test.

i. Pimephales promelas (Fathead minnow)

A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.

B. Report the NOEC value for survival, Parameter No. TOM6C.

C. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.

ii. Daphnia pulex

A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.

B. Report the NOEC value for survival, Parameter No. TOM3D.

C. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

OTHER REQUIREMENTS (cont.)

iii. The permittee shall report the following results for all VALID toxicity retests on the DMR for that reporting period.

A. Retest #1 (STORET 22415): If the first monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0."

B. Retest #2 (STORET 22416): If the second monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0."

If, for any reason, a retest cannot be performed during the reporting period in which the triggering routine test failure is experienced, the permittee shall report it on the following reporting period's DMR, and the comments section of both DMRs shall be annotated to that effect. If retesting is not required during a given reporting period, the permittee shall leave these DMR fields blank.

The permittee shall submit the toxicity testing information contained in Table 1 of this permit with the DMR subsequent to each and every toxicity test reporting period. The DMR and the summary table should be sent to the address indicated in 4.a. The permittee is not required to send the first complete report nor summary tables to EPA.

5. TOXICITY REDUCTION EVALUATION (TRE)

a. Within ninety (90) days **of confirming lethality in any retest**, the permittee shall submit a **Toxicity Reduction Evaluation (TRE) Action Plan and Schedule** for conducting a TRE. The **TRE Action Plan** shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The **TRE Action Plan** shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:

i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA-600/6-91/003)** and **"Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA-600/6-91/005)**, or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080)** and **"Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081)**, as appropriate;

OTHER REQUIREMENTS (cont.)

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at 1-800-553-6847, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 24 hours of test initiation, each 24-hour composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual 24-hour composite samples, for the chemical specific analysis;

iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).

b. The permittee shall initiate the **TRE Action Plan** within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

c. The permittee shall submit a quarterly **TRE Activities Report**, with the Discharge Monitoring Report in the months of January, April, July, and October, containing information on toxicity reduction evaluation activities including:

i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;

ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and

iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

The **TRE Activities Report** shall be submitted to the following addresses:

Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

OTHER REQUIREMENTS (cont.)

U.S. Environmental Protection Agency, Region 6
Water Enforcement Branch
1445 Ross Avenue
Dallas, Texas 75202

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the above addresses.

e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

TABLE 1
SUMMARY SHEET
Daphnia pulex ACUTE SURVIVAL TEST RESULTS

PERMITTEE:_____
FACILITY SITE:_____
NPDES PERMIT NUMBER:_____WP PERMIT NUMBER:_____
OUTFALL IDENTIFICATION:_____
OUTFALL SAMPLE IS FROM _____SINGLE _____MULTIPLE DISCHARGE
BIOMONITORING LABORATORY:_____
DILUTION WATER USED:_____RECEIVING WATER _____LAB WATER
CRITICAL DILUTION _____% DATE TEST INITIATED_____

1. **LOW-FLOW LETHALITY:**

Is the mean survival at 48 hours significantly less (p=0.05) than the control survival for the low flow or critical dilution?
_____Yes _____No

DILUTION SERIES RESULTS - Daphnia

TIME OF READING	REP	0%	0.02%	0.03%	0.04%	0.05%	0.07%
24-HOUR							
48-HOUR							
MEAN							

2. Are the test results to be considered valid? _____Yes _____No
If _X_no (test invalid) , what reasons for invalidity?

3. Is this a retest of a previous invalid test? _____Yes _____No
Is this a retest of a previous test failure? _____Yes _____No

4. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Daphnia pulex:

NOEC _____% EFFLUENT

$LC_{50}48$ _____% EFFLUENT

TABLE 1
SUMMARY SHEET
Pimephales promelas ("fathead minnow") ACUTE SURVIVAL TEST

PERMITTEE:_____
FACILITY SITE:_____
NPDES PERMIT NUMBER:_____ WP PERMIT NUMBER:_____
OUTFALL IDENTIFICATION:_____
OUTFALL SAMPLE IS FROM _____SINGLE _____MULTIPLE DISCHARGE
BIOMONITORING LABORATORY:_____
DILUTION WATER USED:_____RECEIVING WATER _____LAB WATER
CRITICAL DILUTION _____% DATE TEST INITIATED_____

1. LOW-FLOW LETHALITY:

Is the mean survival at 48 hours days significantly less (p=0.05) than the control survival at the low-flow or critical dilution?

_____Yes _____No

DILUTION SERIES RESULTS - Pimephales

TIME OF READING	REP	0%	0.02%	0.03%	0.04%	0.05%	0.07%
24-HOUR							
48-HOUR							
MEAN							

3. Are the test results to be considered valid? _____Yes _____No
   If _X_no (test invalid) , what reasons for invalidity?

4. Is this a retest of a previous invalid test? _____Yes _____No
   Is this a retest of a previous test failure? _____Yes _____No

5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Pimephales:

   a. NOEC _____% effluent
   b. $LC_{50}48$ _____% effluent

PART III
STANDARD CONDITIONS FOR LPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Introduction
In accordance with the provisions of LAC 33:IX.2701, et seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply
The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions
   a. LA. R. S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. LA. R. S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details).

   b. Any person may be assessed an administrative penalty by the State Administrative Authority under LA. R. S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants
   a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

   b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply
   a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.

b. General Permits. General permits expire five years after the effective date. The 180-day reapplication period as defined above is not applicable to general permit authorizations. Reissued general permits may provide automatic coverage for permittees authorized under the previous version of the permit, and no new application is required. Requirements for obtaining authorization under the reissued general permit will be outlined in Part I of the new permit. Permittees authorized to discharge under an expiring general permit should follow the requirements for obtaining coverage under the new general permit to maintain discharge authorization.

6. Permit Action
This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The causes may include, but are not limited to, the following:

a. Noncompliance by the permittee with any condition of the permit;

b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant f acts, or the permittee's misrepresentation of any relevant facts at any time;

c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge; or

e. Failure to pay applicable fees under the provisions of LAC 33: IX. Chapter 13;

f. Change of ownership or operational control;

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights
This permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information
The permittee shall furnish to the state administrative authority, within a reasonable time, any information which the state administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the state administrative authority, upon request, copies of records required to be kept by this permit.

9. Criminal and Civil Liability
Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to La. R.S. 30:2025.

10. Oil and Hazardous Substance Liability
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

11. State Laws
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Severability
If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

13. Dilution
A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

SECTION B. PROPER OPERATION AND MAINTENANCE

1. Need to Halt or Reduce not a Defense
It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Duty to Mitigate
The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Proper Operation and Maintenance

   a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

   b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

4. Bypass of Treatment Facilities

   a. ***Bypass***. The intentional diversion of waste streams from any portion of a treatment facility.

   b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section B.4.c. and 4.d of these standard conditions.

   c. Notice

      (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Water Permits Division, if possible at least ten days before the date of the bypass.

      (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6, (24-hour notice) and Section D.6.e. of these standard conditions.

d. Prohibition of bypass

(1) Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

(c) The permittee submitted notices as required by Section B.4.c of these standard conditions.

(2) The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

5. Upset Conditions

a. Upset. An exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section B.5.c. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii. and Section D.6.e.(2) of these standard conditions; and

(4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.

d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.

7. Percent Removal
For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3. and B.3.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry
The permittee shall allow the state administrative authority or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action; and

b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.

e. Sample Collection

(1) When the inspector announces that samples will be collected, the permittee will be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.

(2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a. above) and the inspector shall supply the permittee with a duplicate sample.

f. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit shall not be grounds for delaying the initiation of an inspection except in situations as described in Section C.1.b. of these standard conditions. The permittee shall be responsible for providing witnesses/escorts during inspections. Inspectors shall abide by all company safety rules and shall be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.

g. Upon written request copies of field notes, drawings, etc., taken by department personnel during an inspection shall be provided to the permittee after the final inspection report has been completed.

2. Representative Sampling
Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the outfall location(s) indicated in the permit. The state administrative authority shall be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) may be subject to modification, revocation and reissuance in accordance with LAC 33:IX.2903.

3. Retention of Records
Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the state administrative authority at any time.

4. Record Contents
Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The time(s) analyses were begun;
e. The individual(s) who performed the analyses;
f. The analytical techniques or methods used;
g. The results of such analyses; and
h. The results of all quality control procedures.

5. Monitoring Procedures

a. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use or disposal, approved under 40 CFR part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in this permit. This includes procedures contained in the latest EPA approved edition of the following publications:

(1) "Standard Methods for the Examination of Water and Waste Water". This publication is available from the American Public Health Association, Publication Sales, P. O. Box 753, Waldorf, MD 20604-0573, Phone number (301) 893-1894, Fax number (301) 843-0159.

(2) "Annual Book of Standards, Vols 1101-1103, Water I, Water II, and Atmospheric Analysis". This publication is available from the American Society for Testing Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, Phone number (610) 832-9500.

(3) "Methods for Chemical Analysis of Water and Wastes, Revised, March 1983," U.S. Environmental Protection Agency, Analytical Quality Control Laboratory, Cincinnati, Ohio. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-84-128677.

b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. General sampling protocol shall follow guidelines established in the "Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982" U.S. Environmental Protection Agency. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-83-124503. General laboratory procedures including glassware cleaning, etc. can be found in the "Handbook for Analytical Quality Control in Water and Wastewater Laboratories, 1979," U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory. This publication is available from the Environmental Protection Agency, Phone number (513) 569-7562. Order by EPA publication number EPA-600/4-79-019.

6. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

a. "A Guide to Methods and Standards for the Measurement of Water Flow, 1975," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number COM-75-10683.

b. "Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-273 535.

c. "NPDES Compliance Flow Measurement Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-82-131178.

7. Prohibition for Tampering; Penalties
a. LA R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.

b. LA R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non compliance.

8. Additional Monitoring by the Permittee
If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR Part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

9. Averaging of Measurements
Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

10. Laboratory Accreditation

a. LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:

(1) Submitted on behalf of any facility, as defined in R.S.30:2004;
(2) Required as part of any permit application;
(3) Required by order of the department;
(4) Required to be included on any monitoring reports submitted to the department;
(5) Required to be submitted by contractor
(6) Otherwise required by department regulations.

b. The department laboratory accreditation program is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not accredited under these regulations will not be accepted by the department. Retesting of analysis will be required by an accredited commercial laboratory.

Where retesting of effluent is not possible (i.e. data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

c. Regulations on the Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation are available on the department website located at:

http://www.deq.state.la.us/laboratory/index.htm.

Questions concerning the program may be directed to (225) 765-0582.

SECTION D. REPORTING REQUIREMENTS

1. Facility Changes
The permittee shall give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under LAC 33:IX.2703.A.1.

c. For Municipal Permits. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301, or 306 of the CWA if it were directly discharging those pollutants; and any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. Anticipated Noncompliance
The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit is not transferable to any person except after notice to the state administrative authority. The state administrative authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act or the Louisiana Environmental Quality Act. (See LAC 33:IX.2901; in some cases, modification or revocation and reissuance is mandatory.)

A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under LAC 33:IX.2903. A.2.b), or a minor modification made (under LAC 33:IX.2905) to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Louisiana Environmental Quality Act.

4. Monitoring Reports
Monitoring results shall be reported at the intervals and in the form specified in Part I or Part II of this permit.

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) on the form specified in the permit. Preprinted DMRs are provided to majors/92-500's and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to:

Supervisor, Permit Compliance Unit
Office of Environmental Compliance
Post Office Box 4312
Baton Rouge, LA 70821-4312

Copies of blank DMR templates, plus instructions for completing them, and EPA's LPDES Reporting Handbook are available at the department website located at:

http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2276

5. Compliance Schedules
Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. Requirements for Notification

a. Emergency Notification
As required by LAC 33.I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Prompt Notification Procedures are listed in Section D.6.c. of these standard conditions.

A written report shall be provided within seven calendar days after the notification. The report shall contain the information listed in Section D.6.d. of these standard conditions and any additional information in LAC 33:I.3925.B.

b. Prompt Notification
As required by LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify the department within 24 hours after learning of the discharge. Notification should be made to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) in accordance with LAC 33:I.3923.

In accordance with LAC 33:I.3923, prompt notification shall be provided within a time frame not to exceed 24 hours and shall be given to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) as follows:

(1) by the Online Incident Reporting screens found at http://www3.deq.louisiana.gov/surveillance/irf/forms/ ;or
(2) by e-mail utilizing the Incident Report Form and instructions found at http://www.deq.louisiana.gov/portal/Default.aspx?tabid=279;or
(3) by telephone at (225) 219-3640 during office hours, or (225) 342-1234 after hours and on weekends and holidays.

c. Content of Prompt Notifications. The following guidelines will be utilized as appropriate, based on the conditions and circumstances surrounding any unauthorized discharge, to provide relevant information regarding the nature of the discharge:

(1) the name of the person making the notification and the telephone number where any return calls from response agencies can be placed;

(2) the name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the transporter and generator;

(3) the date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;

(4) the extent of any injuries and identification of any known personnel hazards that response agencies may face;

(5) the common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all discharged pollutants;

(6) a brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity.

d. Written Notification Procedures. Written reports for any unauthorized discharge that requires notification under Section D.6.a. or 6.b., or shall be submitted by the discharger to the Office of Environmental Compliance, Surveillance Division SPOC in accordance with LAC 33:IX.3925 within seven calendar days after the notification required by D.6.a. or 6.b., unless otherwise provided for in a valid permit or other department regulation. Written notification reports shall include, but not be limited to, the following information:

(1) the name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by this section;

(2) the time and date of prompt notification, the state official contacted when reporting, the name of person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;

(3) date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;

(4) details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:

(a) the current permitted limit for the pollutant(s) released;and
(b) the permitted release point/outfall ID.

(5) the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all released pollutants (total amount of each compound expressed in pounds, including calculations);

(6) a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted;

(7) remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.

(8) Written notification reports shall be submitted to the Office of Environmental Compliance, Surveillance Division SPOC by mail or fax. The transmittal envelope and report or fax cover page and report should be clearly marked "**UNAUTHORIZED DISCHARGE NOTIFICATION REPORT.**"

Please see LAC 33:I.3925.B for additional written notification procedures.

e. Twenty-four Hour Reporting. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and; steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b.);

(2) Any upset which exceeds any effluent limitation in the permit;

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G.).

7. Other Noncompliance
The permittee shall report all instances of noncompliance not reported under Section D.4., 5., and 6., at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

8. Other Information
Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

9. Discharges of Toxic Substances
In addition to the reporting requirements under Section D.1-8, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Office of Environmental Services, Water Permits Division as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant:

i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 µg/L);
(2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4 -dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC33:IX.2501.G.7; or
(4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or

ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant:

i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/L);
(2) One milligram per liter (1 mg/L) for antimony;
(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
(4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or

ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

10. Signatory Requirements
All applications, reports, or information submitted to the state administrative authority shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,

(b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and

accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: DEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in Section D.10.a.(1)(a). The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section D.10.a.(1)(b) rather than to specific individuals.

(2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively; or
(3) For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:
(a) The chief executive officer of the agency, or
(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the state administrative authority shall be signed by a person described in Section D.10.a., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in Section D.10.a. of these standard conditions;
(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position; and,
(3) The written authorization is submitted to the state administrative authority.

c. Changes to authorization. If an authorization under Section D.10.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b. must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under Section D.10. a. or b. above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Availability of Reports
All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

a. The name and address of any permit applicant or permittee;
b. Permit applications, permits, and effluent data.
c. Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITION

1. Criminal

a. Negligent Violations
The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than $50,000 per day of violation, or imprisonment of not more than two years, or both.

b. Knowing Violations
The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or imprisonment for not more than 3 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than $100,000 per day of violation, or imprisonment of not more than six years, or both.

c. Knowing Endangerment
The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any of such provisions in a permit issued under the LPDES by the secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

d. False Statements
The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the LPDES, shall, upon conviction, be subject to a fine of not more than $10,000, or imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this Subsection, he shall be subject to a fine of not more than $20,000 per day of violation, or imprisonment of not more than 4 years, or both.

2. Civil Penalties
The Louisiana Revised Statutes LA. R. S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the secretary, an assistant secretary, or the court, of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than $32,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

(**PLEASE NOTE**: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

SECTION F. DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. Clean Water Act (CWA) means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L.92-500, as amended by Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et. seq.).

2. Accreditation means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.

3. Administrator means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.

4. Applicable Standards and Limitations means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including, effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308 and 403.

5. Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.

6. Commercial Laboratory means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health and Hospitals in accordance with R.S.49:1001 et seq.

7. Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample.

8. Daily Maximum discharge limitation means the highest allowable "daily discharge".

9. Director means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.

10. Domestic septage means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from grease trap at a restaurant.

11. Domestic sewage means waste and wastewater from humans, or household operations that is discharged to or otherwise enters a treatment works.

12. Environmental Protection Agency or (EPA) means the U.S. Environmental Protection Agency.

13. Grab sample means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge.

14. Industrial user means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.

15. LEQA means the Louisiana Environmental Quality Act.

16. Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

17. Monthly Average (also known as Daily Average), other than for fecal coliform bacteria, discharge limitations are calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

When the permit establishes monthly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the monthly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar month.

The monthly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

18. National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.

19. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

20. Sewage sludge means a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; portable toilet pumpings, type III marine sanitation device pumpings (33 CFR part 159); and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

21. Treatment works means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof. (See Part 212 of the Clean Water Act)

22. For fecal coliform bacteria, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

23. The term MGD shall mean million gallons per day.

24. The term mg/L shall mean milligrams per liter or parts per million (ppm).

25. The term µg/L shall mean micrograms per liter or parts per billion (ppb).

26. The term ng/L shall mean nanograms per liter or parts per trillion (ppt).

27. Weekly average, (also known as 7-day average), other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all "daily discharge(s)" measured during a calendar week divided by the number of "daily discharge(s)" measured during that week. When the permit establishes weekly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the weekly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar week where C = daily discharge concentration, F = daily flow and n = number of daily samples; weekly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

When the permit establishes weekly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the weekly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar week.

The weekly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

28. Sanitary Wastewater Term(s):

a. 3-hour composite sample consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 3-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 3-hour period.

b. 6-hour composite sample consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 6-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 6-hour period.

c. 12-hour composite sample consists of 12 effluent portions collected no closer together than one hour over the 12-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 12-hour period. The daily sampling intervals shall include the highest flow periods.

d. 24-hour composite sample consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample continuously collected in proportion to flow over the 24-hour period.

FACT SHEET

as required by LAC 33:IX.2411, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0032794; AI 30293; PER20060001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS: Town of Vidalia
Wastewater Treatment Plant
Post Office Box 2010
Vidalia, LA 71373

II. PREPARED BY: Todd Franklin

DATE PREPARED: October 27, 2006

III. PERMIT ACTION: reissue LPDES permit LA0032794, AI 30293; PER20060001

LPDES application received: July 24, 2006

EPA has not retained enforcement authority.

Previous LPDES permit effective: January 1, 2002
Previous LPDES permit expired: December 31, 2006

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Vidalia.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located on Logan Sewell Drive at the Vidalia Drainage Canal in Vidalia, Concordia Parish.

D. The treatment facility consists of a flow-through, waste stabilization pond with 3 cells with aeration in the primary cell. Effluent is disinfected by chlorination and followed by aeration to dechlorinate. A 10 acre pond adjacent to the main facility stores excessive flows until water levels return to normal operating stages. After periods of excessive flow, wastewater is pumped from the storage pond back to the main lagoon for treatment. Influent is pumped to the waste stabilization pond by three sewage pumping stations, and effluent is pumped approximately 2.4 miles southeast of the facility to the Mississippi River.

E. Outfall 001

Discharge Location: Latitude 31° 32′ 54″ North
Longitude 91° 26′ 37″ West

Description: treated sanitary wastewater

Design Capacity: 1.5 MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

V. RECEIVING WATERS:

The discharge is into the Mississippi River in Subsegment 070101 of the Mississippi River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of the Mississippi River is 141,955 cfs.

The **hardness value** is 157.3 mg/l and the **fifteenth percentile value for TSS** is 41.8 mg/l.

The designated uses and degree of support for Subsegment 070101 of the Mississippi River Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Full	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Full	N/A	N/A	N/A	N/A

[1/] The designated uses and degree of support for Subsegment 070101 of the Mississippi River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 070101 of the Mississippi River Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS) as habitat for the Fat Pocketbook and the Pallid Sturgeon, which are listed as endangered species. Since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat, LDEQ has determined that the issuance of this LPDES permit is not likely to adversely affect the Fat pocketbook and the Pallid sturgeon or their aquatic habitats. As instructed by the FWS in a letter dated October 21, 2005 from Watson (FWS) to Gautreaux (LDEQ), this fact sheet has been sent to the FWS for review and consultation.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible

for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 070101, Mississippi River-from Arkansas State Line to Old River Control Structure, is not listed on LDEQ's Final 2004 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	375	30 mg/l	45 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size which discharge into the Mississippi River.
TSS	1126	90 mg/l	135 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size which discharge into the Mississippi River.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, September 27, 2001 VERSION 4).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0032794, **Biomonitoring Section** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
48 Hour Definitive Toxicity Test using Daphnia pulex	1/year
48 Hour Definitive Toxicity Test using fathead minnow (Pimephales promelas)	1/year

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 0.02%, 0.03%, 0.04%, 0.05%, and 0.07%. The low-flow effluent concentration (critical low-flow dilution) is defined as 0.05% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. According to the Implementation of State Standards, acute toxicity testing in addition to, or in lieu of, chronic toxicity testing may be imposed for discharges that have a critical dilution of five percent (5%) or less. An acute to chronic ratio has been applied in the calculations. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0032794: Effective: January 1, 2002
Expired: December 31, 2006

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
BOD_5	30 mg/l	45 mg/l	2/week	6 Hour Composite
TSS	90 mg/l	135 mg/l	2/week	6 Hour Composite
Fecal Coliform Colonies/100 ml	200	400	2/week	Grab
pH	Range (6.0 su – 9.0 su)		5/week	Grab
Biomonitoring				
Pimephales promelas	Report	Report	1/year	24 Hour comp.
Daphnia pulex	Report	Report	1/year	24 Hour comp.

The permit contains biomonitoring.
The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection performed for this facility.

Date – September 15, 2005
Inspector - LDEQ
Findings and/or Violations -

1. Facility's July DMR did not reveal pH excursion. A corrected DMR will be mailed to Baton Rouge LDEQ.
2. Facility has a 2500 gallon sulfuric acid tank at the STP. This H_2SO_4 is used for pH control. Facility does not have a SPC plan or secondary containment around tank. All other paperwork was in order. All aerators were operating at time of inspection.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement actions administered against this facility:

LDEQ Issuance:
Compliance Order
Enforcement Tracking No. WE-C-02-0805 and WE-C-02-0805A
Date Issued – November 22, 2002 and November 18, 2003
Findings of Fact:

1. The Respondent owns and/or operates a sewage treatment facility located on La. Hwy. 3180 that serves the residences and businesses of

the Town of Vidalia, Concordia Parish, Louisiana. The Respondent is authorized to discharge certain quantities and qualities of treated sanitary wastewater into the Mississippi River, waters of the state, under the terms and conditions of LPDES permit LA0032794 effective on January 1, 2002, and which expires on December 31, 2006. Previously, the Respondent was authorized to discharge certain quantities and qualities of treated sanitary wastewater into the Mississippi River, under the authority of LWDPS permit WP3563 issued on December 30, 1993, and which expired on December 29, 1998. The Department received an LPDES permit application on November 14, 1997, therefore LWDPS permit WP3563 was administratively continued. The Respondent was also authorized to discharge certain qualities and quantities of wastewater under the terms and conditions of NPDES permit LA0032794 effective on February 15, 1992, and which expired on December 4, 1995. The Respondent did not apply for renewal of NPDES permit LA0032794; however, at the time of the expiration of the NPDES permit LA0032794, the Respondent was authorized to discharge under the authority of LWDPS permit WP3563.

2. Inspection on June 11, 2001, revealed that the Respondent did violate the terms and conditions of LWDPS permit WP3563. Specifically, the pH readings were taken one hour after the sample was taken and not as an instantaneous measurement and the temperature of the automatic sampler was 15°C and not at or less than 4°C.
3. Also noted during the inspection on June 11, 2001, was that the Respondent did report the incorrect value for BOD_5 loading on the June 2001 DMR. The Respondent reported a value of 71.55 lbs/day; however, the value calculated at the time of the inspection was 43.56 lbs/day.
4. An inspection on June 11, 2001, subsequent file reviews revealed effluent violations. For the monitoring period from March 2001 through July 2003, there were 25 BOD_5 excursions, 43 pH excursions, and 1 Fecal Coliform excursion reported on the DMRs.
5. A file review on September 17, 2002, revealed that the Respondent did cause or allow the unauthorized discharge of wastewater from a location not specified in LWDPS permit WP3563. Specifically, a power outage on February 7, 2001, did cause an overflow of approximately 20,000 gallons of partially treated sewage from the lagoon into the Vidalia Canal, waters of the state.
6. The Respondent was issued Warning Letter WE-L-02-0105 on April 4, 2002, regarding a file review on March 8, 2002. The warning letter stated that the Respondent should take any and all steps to ensure compliance with all environmental regulations at the facility. The Respondent did submit a response on May 21, 2002. The Respondent was issued Warning Letter WE-L-02-0805 on August 20, 2002, regarding a file review on August 20, 2002. The warning letter stated that the Respondent should take any and all steps to ensure compliance with all environmental regulations at the facility.

Order:

1. To immediately take any and all steps necessary to cease any and all

unauthorized discharges and to meet and maintain compliance with LPDES permit LA0032794.

2. In the event the Respondent believes that complete correction of the above-cited deficiencies is not physically possible within 30 days, the Respondent shall submit a comprehensive plan for the expeditious elimination and prevention of such non-complying discharges. Such plan shall provide for specific corrective actions taken and shall include a schedule for the achievement of compliance within the shortest time possible.
3. To submit to the Enforcement Division a complete written report that shall include a detailed description of the circumstances of the cited violations, the actions taken to achieve compliance with this Compliance Order, and corrective or remedial actions taken to mitigate any damages resulting from the violations.

Warning Letter
Enforcement Tracking No. WE-L-05-0393
Date Issued – August 8, 2005

Warning Letter
Enforcement Tracking No. WE-L-04-1184
Dated Issued – February 10, 2006

Warning Letter
Enforcement Tracking No. WE-L-06-0095
Dated Issued – April 6, 2006

C) DMR Review

A review of the discharge monitoring reports for the period beginning March 2004 through April 206 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
BOD_5, Monthly Avg.	001	March 2004	375 lbs/day	519.70 lbs/day
BOD_5, Monthly Avg.	001	March 2004	30 mg/l	34.07 mg/l
BOD_5, Weekly Avg.	001	March 2004	45 mg/l	57.9 mg/l
BOD_5, Monthly Avg.	001	July 2004	375 lbs/day	386 lbs/day
TSS, Monthly Avg.	001	March 2005	1126 lbs/day	1177.89 lbs/day
TSS, Monthly Avg.	001	April 2005	1126 lbs/day	1458.13 lbs/day

XII. ADDITIONAL INFORMATION:

LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Water quality studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5mg/L $CBOD_5$ and 2 mg/L NH_3-N. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 1.5 MGD.

Effluent loadings are calculated using the following example:

BOD_5: 8.34 gal/lb x 1.5 MGD x 30 mg/l = 375 lb/day

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 1.00 and 5.00 MGD.

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	Continuous	Recorder
BOD_5	2/week	6 Hr. Composite
Total Suspended Solids	2/week	6 Hr. Composite
Fecal Coliform Bacteria	2/week	Grab
Biomonitoring Daphnia pulex	1/year	24 Hr. Composite
Pimephales promelas	1/year	24 Hr. Composite
pH	2/week	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program", Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Vidalia, Wastewater Treatment Facility, July 24, 2006.

APPENDIX I

APPENDIX I

Numeric Toxic Limits: LDEQ has reviewed and evaluated the effluent analyses submitted by the permittee on February 13, 2006, and examined the following pollutants that are regulated by LAC 33:IX.1113.C.6. in accordance with the implementation procedures outlined under the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, October 30, 1995. Please see Appendix B-1, Water Quality Screen Spreadsheet.

Pollutant	Ce [1]	Ce x 2.13 [2]	Water Quality Based Limit [3]	Drinking Water Source	Permit Limit ?
Total Lead	10.6 µg/L	22.578 µg/L	6927.7 lbs/day	No	No
Bromodichloromethane	17 µg/L	36.21 µg/L	6523.6 lbs/day	No	No
Chloroform	124 µg/L	264.12 µg/L	30914 lbs/day	No	No

1/ Metals concentration results were presented as total metals in lab analysis submitted by the permittee. All pollutants calculated in µg/l.

2/ For the reported effluent concentrations (Ce) it is estimated that 95% of the concentrations of chemicals taken over time will be 2.13 times the Ce or less.

3/ The water quality based limit is the maximum allowable instream concentration for that pollutant to be in compliance with water quality standards. Louisiana Water Quality Criteria for metals are hardness dependent, and expressed as dissolved metals. The water quality based limit is calculated with a conversion for metals limits expressed as total metals.

The following steps were used in evaluating the potential toxicity of the analyzed pollutants (see Appendix B-1):

i. An evaluation of the applicability of the effluent data.

Results of the PPS were entered and compared to EPA's Minimum Quantification Levels (MQL's) to determine the potential presence of the respective toxic pollutant. Those pollutants with reported laboratory Method Detection Levels (MDL's) which exceed their respective EPA MQL's are determined to be reasonably present in the effluent and an evaluation of their potential toxicity is determined. Those pollutants with MDLs less than the MQL are determined to be not potentially present in the effluent and eliminated from further evaluation.

ii. Calculation of permit limits based on applicable water quality standards.

Applicable water quality criteria are listed in the Appendix B-1 in Columns 12-14. These values were used to calculate the Waste Load Allocations (WLAs) for each of the toxic pollutants. The WLA is the maximum allowable concentration of a pollutant necessary to meet the respective water quality criteria. The WLAs are calculated as described in the State's Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, dated October 30, 1995, as follows (Lead is used as the example pollutant for the following calculations):

Complete Mix Balance Model for Waste Load Allocation

Qe	=	plant effluent, MGD = 1.5
Qr	=	critical flow of receiving stream, **141,955 cfs**
Fs	=	MZ, ZID flow fraction, LAC 33:IX.1115.D.7 and 8 (**MZ = 0.33, and ZID = 0.033**)
Cr	=	numerical criteria value from LAC 33:IX.1113, Table 1
Cu	=	ambient instream concentration for pollutant. In the absence of accurate supporting data, assume Cu = 0
WLA	=	concentration for pollutant at end-of-pipe based on aquatic life and human health numerical criteria (site specific dilution type)
LTA	=	long term average, units same as WLA
WQBL	=	effluent water quality based limit.

Dilution factor $= \frac{Qe}{(QrFs + Qe)}$

Dilution factor (acute) $= \frac{1.5}{(141955)(0.6463)(0.0.033) + 1.5}$

$= 0.00050$

Dilution factor (chronic) $= \frac{1.5}{(141955)(0.6463)(0.33) + 1.5}$

$= 0.00005$

WLA = (Cr/Dilution factor) - (FsQrCu/Qe)

iii. Conversion of dissolved metals criteria for aquatic life to total metals.

Metals criteria for aquatic life protection are based on dissolved metals concentrations and hardness values averaged from data compilations contained in the Louisiana Water Quality Data Summary. A dissolved to total metal conversion will be implemented. Hardness and TSS are a function of the conversion. This involves determining a linear partition coefficient for the metal of concern and using this to determine the fraction of metal dissolved, so that the dissolved metal ambient criteria may be translated to a total effluent limit. The average hardness value used for the analysis is **157.3 mg/l CaCO3** (USGS data). The 15th percentile TSS value is **41.8 mg/l**. The formula for converting dissolved metals to total metals for streams and lakes are provided below.

K_p	=	Linear partition coefficient
K_{po}	=	found in Table A below
α	=	found in Table A below
TSS	=	total suspended solids concentration found in receiving stream or approximation thereof (nearest most representative site), lowest 15th percentile, units in mg/l
C_D/C_T	=	Fraction of metal dissolved
Cr	=	Dissolved criteria value for metal in water quality standards

$\mathbf{K_p = K_{po} \times TSS^{\alpha}}$

$K_p = (2.80 \times 10^6) \times 41.8^{(-0.8)}$

then, $\frac{C_D}{C_T} = \frac{1}{1 + (K_P)(TSS)(10^{-6})}$

$\frac{C_D}{C_T} = \frac{1}{1 + (141324.353)(41.8)(10^{-6})}$

$= 0.145$

therefore,

$$\text{Total Metal} = \frac{Cr}{(C_D/C_T)}$$

TABLE A

LINEAR PARTITION COEFFICIENTS
FOR PRIORITY METALS IN STREAMS AND LAKES

(Delos et. al, 1984) (*1)

METAL	STREAMS		LAKES	
	K_{po}	α	K_{po}	α
Arsenic	0.48×10^6	-0.73	0.48×10^6	-0.73
Cadmium	4.00×10^6	-1.13	3.52×10^6	-0.92
Chromium III (*2)	3.36×10^6	-0.93	2.17×10^6	-0.27
Copper	1.04×10^6	-0.74	2.85×10^6	-0.9
Lead	2.80×10^6	-0.8	2.04×10^6	-0.53
Mercury	2.90×10^6	-1.14	1.97×10^6	-1.17
Nickel	0.49×10^6	-0.57	2.21×10^6	-0.76
Zinc	1.25×10^6	-0.7	3.34×10^6	-0.68

(*1) Delos, C. G., W. L. Richardson, J. V. DePinto, R. B. Ambrose, P. W. Rogers, K. Rygwelski, J. P. St. John, W. J. Shaughnessey, T. A. Faha, W. N. Christie. Technical Guidance for performing Waste Load Allocations, Book II: Streams and Rivers. Chapter 3: Toxic Substances, for the U. S. Environmental Protection Agency. (EPA-440/4-84-022).

(*2) Linear partition coefficients shall not apply to the Chromium VI numerical criterion. The approved analytical method for Chromium VI measures only the dissolved form. Therefore, permit limits for Chromium VI shall be expressed in the dissolved form. See 40 CFR 122.45(c)(3).

WLA a,c,h = (Cr/Dilution factor) - (FsQrCu/Qe)

WLA_{acute} = (895.74/0.00050) - [(0.033)(141955)(0)/1.5] = 1791480

$WLA_{chronic}$ = (34.90/0.000050) - [(0.33)(141955)(0)/1.5] = 698000

iv. Calculation of Long Term Averages (LTA's) and Permit Limits.

Comparison of the reported effluent data (converted to the 95th percentile) to the calculated effluent limitations. Long term averages are listed in the Appendix B-1 in Columns 15-17.

Long term averages are calculated for each WLA (based on aquatic and human health criteria). The LTA's are calculated as follows:

$LTA_a = WLA_a$ x 0.32
$LTA_c = WLA_c$ x 0.53
$LTA_h = WLA_h$

LTA_{acute} = 1791480 x 0.32 = 573273.6

$LTA_{chronic}$ = 698000 x 0.53 = 369940

A comparison of each LTA is made and the lowest (most restrictive) is selected to calculate the effluent limitations. The most limiting LTA is listed in Appendix B-1, Column 18.

Calculation of permit limits if aquatic life LTA is more limiting:

Daily Average = Min(LTA_a, LTA_c) x 1.31
Daily Maximum = Min(LTA_a, LTA_c) x 3.11

Daily Average = 369640 x 1.31 = 484621.4 µg/l
Daily Maximum = 369640 x 3.11 = 1149580.4 µg/l

If human health LTA is more limiting:
Daily Average = LTA_h
Daily Maximum = LTA_h x 2.38

The resulting allowable effluent concentration is converted to a mass value using the following formula:

lbs/day = (484.6214 mg/l) x 8.34 x 1.5 MGD
= **6062.6 lbs/day**

Comparison of the reported effluent data (converted to 95th percentile) is made to the calculated effluent limitations. Water Quality Based limits are listed in Appendix B-1, Columns 19-22.

In accordance with the State of Louisiana's implementation procedures, the reported effluent concentration is compared to the calculated daily average concentration. If the effluent concentration is greater than the calculated daily average concentration, then a reasonable potential exists and an effluent limitation for the pollutant of concern is imposed in the permit. (Please refer to Appendix B-1 for the calculated daily average concentration listed in Column 19 and the effluent concentration listed in Column 3.)

The discharge is considered to pose a reasonable potential to cause a water quality excursion if the estimated 95th percentile of a pollutant in the effluent will result in an instream waste concentration, which is above the applicable State water quality criterion. The 95th percentile of possible effluent concentrations are estimated as follows:

$$C_{95} = C_{mean} * \exp (1.645 * \sigma - 0.5 * \sigma^2)$$

where: 1.645 = normal distribution factor at 95th percentile

$$\sigma^2 = \ln(CV^2 + 1)$$

if CV is assumed = 0.6,
$\sigma^2 = .307$

The ratio of the estimated 95th percentile value to the mean (C_{95}/C_{mean}) is calculated :

$$C_{95}/C_{mean} = 2.13$$

Based upon review of the permittee's effluent data, there are no pollutants present or potentially present in the effluent discharge in such concentrations which would cause an exceedance of Louisiana's Water Quality Standards. A summary of the evaluation of the permittee's effluent analysis of the toxic pollutants is listed in Appendix B-1.

APPENDIX B-1

Water Quality Screen

wqsmodn.wk4	Date:	10/27/06	Appendix B-1			Page	1
Developer: Bruce Fielding	Time:	08:48 AM					
Software: Lotus 4.0			LA0032794				
Revision date: 10/22/99							
	Water Quality Screen for		Town of Vidalia WWTF				
Input variables:							
Receiving Water Characteristics:			Dilution:		Toxicity Dilution Series:		
			ZID Fs =	0.033333333	Biomonitoring dilution:		0.000490463
Receiving Water Name=	**Mississippi River**				Dilution Series Factor:		0.75
Critical flow (Qr) cfs=	141,955		MZ Fs =	0.333333333			
Harm. mean/avg tidal cfs=	366,748		Critical Qr (MGD)=	91745.5165			Percent Effluent
Drinking Water=1 HHNPCR=2			Harm. Mean (MGD)=	237029.2324	Dilution No. 1		0.065%
Marine, 1=y, 0=n			ZID Dilution =	0.000490247	Dilution No. 2		0.0490%
Rec. Water Hardness=	157.3		MZ Dilution =	4.90463E-05	Dilution No. 3		0.0368%
Rec. Water TSS=	41.8		HHnc Dilution=	1.63493E-05	Dilution No. 4		0.0276%
Fisch/Specific=1,Stream=0			HHc Dilution=	6.32829E-06	Dilution No. 5		0.0207%
Diffuser Ratio=			ZID Upstream =	2038.789256			
			MZ Upstream =	20387.89256	Partition Coefficients; Dissolved-->Total		
Effluent Characteristics:			MZhhnc Upstream=	61163.67767			
Permittee=	**Town of Vidalia WWTF**				METALS	FW	
Permit Number=	**LA0032794**		MZhhc Upstream=	158019.4883	Total Arsenic	2.315100169	
Facility flow (Qef),MGD=	1.5		ZID Hardness=	---	Total Cadmium	3.462107861	
			MZ Hardness=	---	Chromium III	5.363365738	
Outfall Number =	001		ZID TSS=	---	Chromium VI	1	
Eff. data, 2=lbs/day			MZ TSS=	---	Total Copper	3.744979924	
MQL, 2=lbs/day					Total Lead	6.907357956	
Effluent Hardness=	N/A		Multipliers:		Total Mercury	2.71962329	
Effluent TSS=	N/A		WLAa --> LTAa	0.32	Total Nickel	3.439505947	
WQBL ind. 0=y, 1=n			WLAc --> LTAc	0.53	Total Zinc	4.830565541	
Acute/Chr. ratio 0=n, 1=y	1		LTA a,c-->WQBL avg	1.31			
Aquatic,acute only1=y,0=n			LTA a,c-->WQBL max	3.11	Aquatic Life, Dissolved		
			LTA h --> WQBL max	2.38	Metal Criteria, ug/L		
Page Numbering/Labeling			WQBL-limit/report	2.13	METALS	ACUTE	CHRONIC
Appendix	**Appendix B-1**		WLA Fraction	1	Arsenic	360	190
Page Numbers 1=y, 0=n	1		WQBL Fraction	1	Cadmium	56.15965552	1.618764424
Input Page # 1=y, 0=n	1				Chromium III	2516.511232	299.953898
			Conversions:		Chromium VI	16	11
Fischer/Site Specific inputs:			ug/L-->lbs/day Qef	0.01251	Copper	29.4117267	18.84397596
Pipe=1,Canal=2,Specific=3			ug/L-->lbs/day Qeo	0	Lead	145.3334959	5.663437688
Pipe width, feet			ug/L-->lbs/day Qr	1183.9047	Mercury	2.4	0.012
ZID plume dist., feet			lbs/day-->ug/L Qeo	79.93605116	Nickel	2080.573736	231.2961605
MZ plume dist., feet			lbs/day-->ug/L Qef	79.93605116	Zinc	171.7731259	155.5822562
HHnc plume dist., feet			diss-->tot 1=y0=n	1			
HHc plume dist., feet			Cu diss->tot1=y0=n	1	Site Specific Multiplier Values:		
			cfs-->MGD	0.6463	CV =		---
Fischer/site specific dilutions:					N =		---
ID Dilution =	---		Receiving Stream:		WLAa --> LTAa		---
F/specific MZ Dilution =	---		Default Hardness=	25	WLAc --> LTAc		---
F/specific HHnc Dilution=	---		Default TSS=	10	LTA a,c-->WQBL avg		---
F/specific HHc Dilution=	---				LTA a,c-->WQBL max		---
					LTA h --> WQBL max		---

(*1)	(*2)	(*3)	(*4)	(*5)	(*6)	(*7)	(*8)	(*9)	(*10)	(*11)
Toxic	Cu	Effluent	Effluent	MQL	Effluent	95th %	Numerical Criteria			HH
Parameters	Instream	/Tech	/Tech		1=No 95%	estimate	Acute	Chronic	HHNDW	Carcinogen
	Conc.	(Avg)	(Max)		0=95 %	Non-Tech	FW	FW		Indicator
	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	"C"
NONCONVENTIONAL										
Total Phenols (4AAP)				5			700	350	50	
3-Chlorophenol				10						
4-Chlorophenol				10			383	192		
2,3-Dichlorophenol				10						
2,5-Dichlorophenol				10						
2,6-Dichlorophenol				10						
3,4-Dichlorophenol				10						
2,4-Dichlorophenocy-										
acetic acid (2,4-D)				---						
2-(2,4,5-Trichlorophen-										
oxy) propionic acid										
(2,4,5-TP, Silvex)				---						
METALS AND CYANIDE										
Total Arsenic				10			833.4360607	439.869032		
Total Cadmium				1			194.4307848	5.604337036		
Chromium III				10			13496.97012	1608.762459		
Chromium VI				10			16	11		
Total Copper				10			110.146326	70.57031167		
Total Lead		10.6		5	0	22.578	1003.870479	39.11939137		
Total Mercury				0.2			6.527095896	0.032635479		
Total Nickel				40			7156.145739	795.5445195		
Total Zinc				20			829.7613428	751.5502856		
Total Cyanide				20			45.9	5.4	12844	
DIOXIN										
2,3,7,8 TCDD: dioxin				1.00E-05					7.20E-07	C
VOLATILE COMPOUNDS										
Benzene				10			2249	1125	12.5	C
Bromoform				10			2930	1465	34.7	C
Bromodichloromethane		17		10	0	36.21			3.3	C
Carbon Tetrachloride				10			2730	1365	1.2	C
Chloroform		124		10	0	264.12	2890	1445	70	C
Dibromochloromethane				10					5.08	C
1,2-Dichloroethane(EDC)				10			11800	5900	6.8	C
1,1-Dichloroethylene				10			1160	580	0.58	C
1,3-Dichloropropylene				10			606	303	162.79	
Ethylbenzene				10			3200	1600	8100	
Methyl Chloride				50			55000	27500		
Methylene Chloride				20			19300	9650	87	C
1,1,2,2-Tetrachloro-										
ethane				10			932	466	1.8	C

(*1)	(*12)	(*13)	(*14)	(*15)	(*16)	(*17)	(*18)	(*19)	(*20)	(*21)	(*22)	(*23)
Toxic	WLAa	WLAc	WLAh	LTAa	LTAc	LTAh	Limiting	WQBL	WQBL	WQBL	WQBL	Need
Parameters	Acute	Chronic	HHNDW	Acute	Chronic	HHNDW	A,C,HH	Avg	Max	Avg	Max	WQBL?
								001	001	001	001	
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	lbs/day	lbs/day	
NONCONVENTIONAL												
Total Phenols (4AAP)	1427852.479	7136112.394	3058233.883	456912.7932	3782139.569	3058233.883	456912.7932	598555.7592	1420998.787	7487.932547	17776.69483	no
3-Chlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
4-Chlorophenol	781239.2849	3914667.371	---	249996.5712	2074773.706	---	249996.5712	327495.5082	777489.3363	4096.968808	9726.391597	no
2,3-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,5-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,6-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
3,4-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,4-Dichlorophenocy-												
acetic acid (2,4-D)	---	---	---	---	---	---	---	---	---	---	---	no
2-(2,4,5-Trichlorophen-												
oxy) propionic acid												
(2,4,5-TP, Silvex)	---	---	---	---	---	---	---	---	---	---	---	no
METALS AND CYANIDE												
Total Arsenic	1700033.922	8968442.433	---	544010.855	4753274.489	---	544010.855	712654.22	1691873.759	8915.304293	21165.34073	no
Total Cadmium	396597.8258	114266.2257	---	126911.3043	60561.09961	---	60561.09961	79335.04049	188345.0198	992.4813565	2356.196197	no
Chromium III	27530974.63	32800884.93	---	8809911.882	17384469.01	---	8809911.882	11540984.57	27398825.95	144377.7169	342759.3127	no
Chromium VI	32636.62809	224277.8181	---	10443.72099	118867.2436	---	10443.72099	13681.27449	32479.97227	171.1527439	406.3244531	no
Total Copper	224675.2924	1438850.502	---	71896.09355	762590.7662	---	71896.09355	94183.88256	223596.851	1178.240371	2797.196605	no
Total Lead	2047684.217	797601.0675	---	655258.9495	422728.5658	---	422728.5658	553774.4212	1314685.84	6927.718009	16446.71985	no
Total Mercury	13313.90008	665.4012846	---	4260.448025	352.6626809	---	352.6626809	461.9881119	1096.780937	5.77947128	13.72072953	no
Total Nickel	14597029.19	16220271.73	---	4671049.34	8596744.017	---	4671049.34	6119074.636	14526963.45	76549.6237	181752.3127	no
Total Zinc	1692538.272	15323278.02	---	541612.2469	8121337.353	---	541612.2469	709512.0435	1684414.088	8875.995664	21072.02024	no
Total Cyanide	93626.32683	110100.0198	785599120	29960.42459	58353.01049	785599120	29960.42459	39248.15621	93176.92046	490.9944342	1165.643275	no
DIOXIN												
2,3,7,8 TCDD; dioxin	---	---	1.14E-01	---	---	1.14E-01	1.14E-01	1.14E-01	2.71E-01	1.42E-03	3.39E-03	no
VOLATILE COMPOUNDS												
Benzene	4587486.036	22937504.13	1975256.103	1467995.531	12156877.19	1975256.103	1467995.531	1923074.146	4565466.103	24057.65757	57113.98095	no
Bromoform	5976582.519	29869727.59	5483310.943	1912506.406	15830955.62	5483310.943	1912506.406	2505383.392	5947894.923	31342.34623	74408.16548	no
Bromodichloromethane	---	---	521467.6113	---	---	521467.6113	521467.6113	521467.6113	1241092.915	6523.559817	15526.07236	no
Carbon Tetrachloride	5568624.668	27830838.34	189624.5859	1781959.894	14750344.32	189624.5859	189624.5859	189624.5859	451306.5145	2372.20357	5645.844496	no
Chloroform	5894990.949	29461949.74	11061434.18	1886397.104	15614833.36	11061434.18	1886397.104	2471180.206	5866694.992	30914.46437	73392.35435	no
Dibromochloromethane	---	---	802744.0804	---	---	802744.0804	802744.0804	802744.0804	1910530.911	10042.32845	23900.7417	no
1,2-Dichloroethane(EDC)	24069513.22	120294466.1	1074539.32	7702244.229	63756067.02	1074539.32	1074539.32	1074539.32	2557403.582	13442.4869	31993.11881	no
1,1-Dichloroethylene	2366155.536	11825557.68	91651.88319	757169.7717	6267545.572	91651.88319	91651.88319	91651.88319	218131.482	1146.565059	2728.82484	no
1,3-Dichloropropylene	1236112.289	6177834.444	9956997.877	395555.9324	3274252.255	9956997.877	395555.9324	518178.2715	1230178.95	6482.410176	15389.53866	no
Ethylbenzene	6527325.618	32622228.09	495433889.1	2088744.198	17289780.89	495433889.1	2088744.198	2736254.899	6495994.455	34230.54879	81264.89063	no
Methyl Chloride	112188409.1	560694545.3	---	35900290.9	297168109	---	35900290.9	47029381.08	111649904.7	588337.5573	1396740.308	no
Methylene Chloride	39367932.63	196752813.2	13747782.48	12597738.44	104278991	13747782.48	12597738.44	16503037.36	39178966.56	206452.9974	490128.8716	no
1,1,2,2-Tetrachloro-												
ethane	1901083.586	9501223.931	284436.8789	608346.7476	5035648.683	284436.8789	284436.8789	284436.8789	676959.7717	3558.305355	8468.766744	no

(*1)	(*2)	(*3)	(*4)	(*5)	(*6)	(*7)	(*8)	(*9)	(*10)	(*11)
Toxic	Cu	Effluent	Effluent	MQL	Effluent	95th %	Numerical Criteria			HH
Parameters	Instream	/Tech	/Tech		1=No 95%	estimate	Acute	Chronic	HHNDW	Carcinogen
	Conc.	(Avg)	(Max)		0=95 %	Non-Tech	FW	FW		Indicator
	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	"C"
VOLATILE COMPOUNDS (cont'd)										
Tetrachloroethylene				10			1290	645	2.5	C
Toluene				10			1270	635	46200	
1,1,1-Trichloroethane				10			5280	2640		
1,1,2-Trichloroethane				10			1800	900	6.9	C
Trichloroethylene				10			3900	1950	21	C
Vinyl Chloride				10					35.8	C
ACID COMPOUNDS										
2-Chlorophenol				10			258	129	126.4	
2,4-Dichlorophenol				10			202	101	232.6	
BASE NEUTRAL COMPOUNDS										
Benzidine				50			250	125	0.00017	C
Hexachlorobenzene				10					0.00025	C
Hexachlorabutadiene				10			5.1	1.02	0.11	C
PESTICIDES										
Aldrin				0.05			3		0.0004	C
Hexachlorocyclohexane										
(gamma BHC, Lindane)				0.05			5.3	0.21	0.2	C
Chlordane				0.2			2.4	0.0043	0.00019	C
4,4'-DDT				0.1			1.1	0.001	0.00019	C
4,4'-DDE				0.1			52.5	10.5	0.00019	C
4,4'-DDD				0.1			0.03	0.006	0.00027	C
Dieldrin				0.1			2.5	0.0019	0.00005	C
Endosulfan				0.1			0.22	0.056	0.64	
Endrin				0.1			0.18	0.0023	0.26	
Heptachlor				0.05			0.52	0.0038	0.00007	C
Toxaphene				5			0.73	0.0002	0.00024	C
Other Parameters:										
Fecal Colif. (col/100ml)										
Chlorine							19	11		
Ammonia										
Chlorides										
Sulfates										

(*1)	(*12)	(*13)	(*14)	(*15)	(*16)	(*17)	(*18)	(*19)	(*20)	(*21)	(*22)	(*23)
Toxic	WLAa	WLAc	WLAh	LTAa	LTAc	LTAh	Limiting	WQBL	WQBL	WQBL	WQBL	Need
Parameters	Acute	Chronic	HHNDW	Acute	Chronic	HHNDW	A,C,HH	Avg	Max	Avg	Max	WQBL?
								001	001	001	001	
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	lbs/day	lbs/day	
Tetrachloroethylene	2631328.14	13150835.7	395051.2207	842025.0047	6969942.92	395051.2207	395051.2207	395051.2207	940221.9052	4942.090771	11762.17603	no
Toluene	2590532.355	12946946.77	2825808108	828970.3535	6861881.79	2825808108	828970.3535	1085951.163	2578097.799	13585.24905	32252.00347	no
1,1,1-Trichloroethane	10770087.27	53826676.35	—	3446427.926	28528138.46	—	3446427.926	4514820.583	10718390.85	56480.4055	134087.0695	no
1,1,2-Trichloroethane	3671620.66	18350003.3	1090341.369	1174918.611	9725501.749	1090341.369	1090341.369	1090341.369	2595012.458	13640.17053	32463.60585	no
Trichloroethylene	7955178.097	39758340.48	3318430.254	2545656.991	21071920.46	3318430.254	2545656.991	3334810.658	7916993.242	41718.48133	99041.58545	no
Vinyl Chloride	—	—	5657133.48	—	—	5657133.48	5657133.48	5657133.48	13463977.68	70770.73983	168434.3608	no
ACID COMPOUNDS												
2-Chlorophenol	526265.6279	2630167.14	7731215.257	168405.0009	1393988.584	7731215.257	168405.0009	220610.5512	523739.5529	2759.837996	6551.981807	no
2,4-Dichlorophenol	412037.4296	2059278.148	14226904.03	131851.9775	1091417.418	14226904.03	131851.9775	172726.0905	410059.65	2160.803392	5129.846221	no
BASE NEUTRAL COMPOUNDS												
Benzidine	509947.3139	2548611.569	26.86348301	163183.1404	1350764.132	26.86348301	26.86348301	26.86348301	63.93508955	0.336062172	0.79982797	no
Hexachlorobenzene	—	—	39.50512207	—	—	39.50512207	39.50512207	39.50512207	94.02219052	0.494209077	1.176217603	no
Hexachlorabutadiene	10402.9252	20796.67041	17382.25371	3328.936065	11022.23532	17382.25371	3328.936065	4360.906245	10352.99116	54.55493713	129.5159194	no
PESTICIDES												
Aldrin	6119.367767	—	63.20819531	1958.197685	—	63.20819531	63.20819531	63.20819531	150.4355048	0.790734523	1.881948165	no
Hexachlorocyclohexane												
(gamma BHC, Lindane)	10810.88305	4281.667437	31604.09765	3459.482577	2269.283741	31604.09765	2269.283741	2972.761701	7057.472436	37.18924888	88.28898017	no
Chlordane	4895.494213	87.67223799	30.02389277	1566.558148	46.46628613	30.02389277	30.02389277	30.02389277	71.45686479	0.375598899	0.893925379	no
4,4'-DDT	2243.768181	20.38889256	30.02389277	718.005818	10.80611305	30.02389277	10.80611305	14.1560081	33.60701 16	0.177091661	0.420423715	no
4,4'-DDE	107088.9359	214083.3718	30.02389277	34268.45949	113464.1871	30.02389277	30.02389277	30.02389277	71.45686479	0.375598899	0.893925379	no
4,4'-DDD	61.19367767	122.3333553	42.66553183	19.58197685	64.83667833	42.66553183	19.58197685	25.65238968	60.89994801	0.320911395	0.76185835	no
Dieldrin	5099.473139	38.73889586	7.901024413	1631.831404	20.5316148	7.901024413	7.901024413	7.901024413	18.8044381	0.098841815	0.235243521	no
Endosulfan	448.7536362	1141.777983	39145.39371	143.6011636	605.142331	39145.39371	143.6011636	188.1175243	446.5996188	2.353350229	5.586961231	no
Endrin	367.162066	46.89445288	15902.81619	117.4918611	24.85406003	15902.81619	24.85406003	32.55881863	77.29612668	0.407310821	0.966974545	no
Heptachlor	1060.690413	77.47779171	11.06143418	339.4209321	41.06322961	11.06143418	11.06143418	11.06143418	26.32621335	0.138378542	0.329340929	no
Toxaphene	1489.046157	4.077778511	37.92491718	476.4947701	2.161222611	37.92491718	2.161222611	2.83120162	6.72140232	0.035418332	0.084084743	no
Other Parameters:												
Fecal Colif. (col/100ml)	—	—	—	—	—	—	—	—	—	—	—	no
Chlorine	38755.99586	224277.8181	—	12401.91867	118867.2436	—	12401.91867	16246.51346	38569.96708	203.2438834	482.5102881	no
Ammonia	—	—	—	—	—	—	—	—	—	—	—	no
Chlorides	—	—	—	—	—	—	—	—	—	—	—	no
Sulfates	—	—	—	—	—	—	—	—	—	—	—	no

APPENDIX B-2

**Documentation and Explanation of
Water Quality Screen and
Associated Lotus Spreadsheet**

APPENDIX B-2
LA0032794/AI 30293/PER20060001

Documentation and Explanation of Water Quality Screen and Associated Lotus Spreadsheet

Each reference column is marked by a set of parentheses enclosing a number and asterisk, for example (*1) or (*19). These columns represent inputs, existing data sets, calculation points, and results for determining Water Quality Based Limits for an effluent of concern. The following represents a summary of information used in calculating the water quality screen:

Receiving Water Characteristics:

Receiving Water: Mississippi River
Critical Flow, Qrc (cfs): 141,955 cfs
Harmonic Mean Flow, Qrh (cfs): cfs
Segment(s) No.: 070101
Receiving Stream Hardness: 157.3 mg/l
Receiving Stream TSS: 41.8 mg/l
MZ Stream Factor, Fs: 0.33 cfs
Plume distance, Pf: N/A

Effluent Characteristics:

Company: Town of Vidalia / Wastewater Treatment Facility
Facility flow, Qe (MGD): 1.5 MGD
Effluent Hardness: N/A
Effluent TSS: N/A
Pipe/canal width, Pw: N/A
Permit Number: LA0032794

Variable Definition:

Qrc, critical flow of receiving stream: 141,955 cfs
Qrh, harmonic mean flow of the receiving stream, cfs
Pf =Allowable plume distance in feet, specified in LAC 33.IX.1115.D
Pw = Pipe width or canal width in feet
Qe, total facility flow, 1.5 MGD
Fs, stream factor from LAC.IX.33.11 (1 for harmonic mean flow)
Cu, ambient concentration, ug/L
Cr, numerical criteria from LAC.IX.1113, Table 1
WLA, wasteload allocation
LTA, long term average calculations
WQBL, effluent water quality based limit
ZID, Zone of Initial Dilution in % effluent
MZ, Mixing Zone in % effluent

Formulas used in aquatic life water quality screen (dilution type WLA):

Streams: $$\text{Dilution Factor} = \frac{Qe}{(Qrc \times 0.6463 \times Fs + Qe)}$$

$$\text{WLA a,c,h} = \frac{Cr}{\text{Dilution Factor}} - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Static water bodies (in the absence of a site specific dilution):

Discharge from a pipe:

$$\text{Critical Dilution} = \frac{(2.8)\ Pw\ \pi^{1/2}}{Pf}$$

$$\text{WLA} = \frac{(Cr-Cu)\ Pf}{(2.8)\ Pw\ \pi^{1/2}}$$

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.38)(Pw^{1/2})}{(Pf)^{1/2}}$$

$$\text{WLA} = \frac{(Cr-Cu)\ Pf^{1/2}}{2.38\ Pw^{1/2}}$$

Formulas used in human health water quality screen, human health non-carcinogens (dilution type WLA):

Streams:

$$\text{Dilution Factor} = \frac{Qe}{(Qrc \times 0.6463 + Qe)}$$

$$\text{WLA a,c,h} = \frac{Cr}{\text{Dilution Factor}} - \frac{(Qrc \times 0.6463 \times Cu)}{Qe}$$

Formulas used in human health water quality screen, human health carcinogens (dilution type WLA):

$$\text{Dilution Factor} = \frac{Qe}{(Qrh \times 0.6463 + Qe)}$$

$$\text{WLA a,c,h} = \frac{Cr}{\text{Dilution Factor}} - \frac{(Qrh \times 0.6463 \times Cu)}{Qe}$$

Static water bodies in the absence of a site specific dilution (human health carcinogens and human health non-carcinogens):

Discharge from a pipe:

$$\text{Critical Dilution} = \frac{(2.8)\ Pw\ \pi^{1/2}}{Pf}$$

$$\text{WLA} = \frac{(Cr-Cu)\ Pf^{*}}{(2.8)\ Pw\ \pi^{1/2}}$$

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.38)(Pw^{1/2})}{(Pf)^{1/2}}$$

$$\text{WLA} = \frac{(Cr-Cu)\ Pf^{1/2*}}{2.38\ Pw^{1/2}}$$

* Pf is set equal to the mixing zone distance specified in LAC 33:IX.1115 for the static water body type, i.e., lake, estuary, Gulf of Mexico, etc.
If a site specific dilution is used, WLA are calculated by subtracting Cu from Cr and dividing by the site specific dilution for human health and aquatic life criteria.

$$WLA = \frac{(Cr-Cu)}{\text{site specific dilution}}$$

Longterm Average Calculations:
LTAa = WLAa X 0.32
LTAc = WLAc X 0.53
LTAh = WLAh

WQBL Calculations:

Select most limiting LTA to calculate daily max and daily avg WQBL

If aquatic life LTA is more limiting:

Daily Maximum = Min(LTAa, LTAc) X 3.11
Monthly Average = Min(LTAc, LTAc) X 1.31

If human health LTA is more limiting:

Daily Maximum = LTAh X 2.38
Monthly Average = LTAh

Mass Balance Formulas:

mass (lbs/day): (ug/L) X 1/1000 X (flow, MGD) X 8.34 = lbs/day

$$\text{concentration(ug/L)}: \frac{\text{lbs/day}}{\text{(flow, MGD) X 8.34 X 1/1000}} = \text{ug/L}$$

The following is an explanation of the references in the spreadsheet.

(*1) Parameter being screened.

(*2) Instream concentration for the parameter being screened in ug/L. In the absence of accurate supporting data, the instream concentration is assumed to be zero (0).

(*3) Monthly average effluent value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.

(*4) Daily maximum value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.

(*5) Minimum analytical Quantification Levels (MQL's). Established in a letter dated January 27, 1994 from Wren Stenger of EPA Region 6 to Kilren Vidrine of LDEQ and from the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". The applicant must test for the parameter at a level at least as sensitive as the specified MQL. If

this is not done, the MQL becomes the application value for screening purposes if the pollutant is suspected to be present on-site and/or in the waste stream. Units are in ug/l or lbs/day depending on the units of the effluent data.

(*6) States whether effluent data is based on 95th percentile estimation. A "1" indicates that a 95th percentile approximation is being used, a "0" indicates that no 95th percentile approximation is being used.

(*7) 95th percentile approximation multiplier (2.13). The constant, 2.13, was established in memorandum of understanding dated October 8, 1991 from Jack Ferguson of Region 6 to Jesse Chang of LDEQ and included in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". This value is screened against effluent Water Quality Based Limits established in columns (*18) - (*21). Units are in ug/l or lbs/day depending on the units of the measured effluent data.

(*8) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, acute criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations using the following formula: (Effluent Hardness X ZID Dilution + Receiving Stream Hardness X (1-ZID Dilution)). Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations using the following formula: (Effluent TSS X ZID Dilution + Receiving Stream TSS X (1-ZID Dilution)).

Hardness Dependent Criteria:

Metal	Formula
Cadmium	$e^{(1.1280[\ln(\text{hardness})] - 1.6774)}$
Chromium III	$e^{(0.8190[\ln(\text{hardness})] + 3.6880)}$
Copper	$e^{(0.9422[\ln(\text{hardness})] - 1.3884)}$
Lead	$e^{(1.2730[\ln(\text{hardness})] - 1.4600)}$
Nickel	$e^{(0.8460[\ln(\text{hardness})] + 3.3612)}$
Zinc	$e^{(0.8473[\ln(\text{hardness})] + 0.8604)}$

Dissolved to Total Metal Multipliers for Freshwater Streams (TSS dependent):

Metal	Multiplier
Arsenic	$1 + 0.48 \times TSS^{-0.73} \times TSS$
Cadmium	$1 + 4.00 \times TSS^{-1.13} \times TSS$
Chromium III	$1 + 3.36 \times TSS^{-0.93} \times TSS$
Copper	$1 + 1.04 \times TSS^{-0.74} \times TSS$
Lead	$1 + 2.80 \times TSS^{-0.80} \times TSS$
Mercury	$1 + 2.90 \times TSS^{-1.14} \times TSS$
Nickel	$1 + 0.49 \times TSS^{-0.57} \times TSS$
Zinc	$1 + 1.25 \times TSS^{-0.70} \times TSS$

Dissolved to Total Metal Multipliers for Marine Environments (TSS dependent):

Metal	Multiplier
Copper	$1 + (10^{4.86} \times TSS^{-0.72} \times TSS) \times 10^{-6}$
Lead	$1 + (10^{6.06} \times TSS^{-0.85} \times TSS) \times 10^{-6}$
Zinc	$1 + (10^{5.36} \times TSS^{-0.52} \times TSS) \times 10^{-6}$

If a metal does not have multiplier listed above, then the dissolved to total metal multiplier shall be 1.

(*9) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, chronic criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations using the following formula: (Effluent Hardness X MZ Dilution + Receiving Stream Hardness X (1-MZ Dilution)). Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used,

however, a flow weighted TSS may be determined in site-specific situations using the following formula: (Effluent TSS X MZ Dilution + Receiving Stream TSS X (1-MZ Dilution)).

Hardness dependent criteria:

Metal	Formula
Cadmium	$e^{(0.7852[\ln(\text{hardness})] - 3.4900)}$
Chromium III	$e^{(0.8473[\ln(\text{hardness})] + 0.7614)}$
Copper	$e^{(0.8545[\ln(\text{hardness})] - 1.3860)}$
Lead	$e^{(1.2730[\ln(\text{hardness})] - 4.7050)}$
Nickel	$e^{(0.8460[\ln(\text{hardness})] + 1.1645)}$
Zinc	$e^{(0.8473[\ln(\text{hardness})] + 0.7614)}$

Dissolved to total metal multiplier formulas are the same as (*8), acute numerical criteria for aquatic life protection.

(*10) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, human health protection, drinking water supply (HHDW), non-drinking water supply criteria (HHNDW), or human health non-primarry contact recreation (HHNPCR) (whichever is applicable). A DEQ and EPA approved Use Attainability Analysis is required before HHNPCR is used, e.g., Monte Sano Bayou. Units are specified.

(*11) C if screened and carcinogenic. If a parameter is being screened and is carcinogenic a "C" will appear in this column.

(*12) Wasteload Allocation for acute aquatic criteria (WLAa). Dilution type WLAa is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the acute aquatic numerical criteria for that parameter. Units are in ug/L. Dilution WLAa formulas for streams:

$$WLAa = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAa formulas for static water bodies:

WLAa = (Cr-Cu)/Dilution Factor)
Cr represents aquatic acute numerical criteria from column (*8).
If Cu data is unavailable or inadequate, assume Cu=0

(*13) Wasteload Allocation for chronic aquatic criteria (WLAc). Dilution type WLAc is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the chronic aquatic numerical criteria for that parameter. Units are in ug/L. Dilution WLAc formula:

$$WLAc = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAc formulas for static water bodies:

WLAc = (Cr-Cu)/Dilution Factor)

Cr represents aquatic chronic numerical criteria from column (*9).
If Cu data is unavailable or inadequate, assume Cu=0

(*14) Wasteload Allocation for human health criteria (WLAh). Dilution type WLAh is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the human health numerical criteria for that parameter. Units are in ug/L. Dilution WLAh formula:

$$WLAh = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc,Qrh \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAh formulas for static water bodies:

WLAh = (Cr-Cu)/Dilution Factor)

Cr represents human health numerical criteria from column (*10).

If Cu data is unavailable or inadequate, assume Cu=0

(*15) Long Term Average for aquatic numerical criteria (LTAa). WLAa numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.32. WLAa X 0.32 = LTAa

(*16) Long Term Average for chronic numerical criteria (LTAc). WLAc numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.53. WLAc X 0.53 = LTAc

(*17) Long Term Average for human health numerical criteria (LTAh). WLAh numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 1. WLAc X 1 = LTAh

(*18) Limiting Acute, Chronic or Human Health LTA's. The most limiting LTA is placed in this column. Units are consistent with the WLA calculation.

(*19) End of pipe Water Quality Based Limit (WQBL) maximum 30-day monthly average in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 1.31 to determine the average WQBL ($LTA_{\text{limiting aquatic}} \times 1.31 = WQBL_{\text{daily average}}$). If human health criteria was the most limiting criteria then $LTAh = WQBL_{\text{daily average}}$.

(*20) End of pipe Water Quality Based Limit (WQBL) 30-day daily maximum in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 3.11 to determine the daily maximum WQBL ($LTA_{limiting\ aquatic}$ X 3.11 = $WQBL_{daily\ max}$). If human health criteria was the most limiting criteria then LTAh is multiplied by 2.38 to determine the daily maximum WQBL ($LTA_{limiting\ aquatic}$ X 2.38 = $WQBL_{daily\ max}$).

(*21) End of pipe Water Quality Based Limit (WQBL) maximum 30-day monthly average in terms of mass, lbs/day. The mass limit is determined by using the mass balance equations above. Daily average WQBL, ug/l/1000 X facility flow, MGD X 8.34 = daily average WQBL, lbs/day.

(*22) End of pipe Water Quality Based Limit (WQBL) 30 day daily maximum in terms of mass, lbs/day. Mass limit is determined by using the mass balance equations above. Daily maximum WQBL, ug/l/1000 X facility flow, MGD X 8.34 = daily maximum WQBL, lbs/day.

STREAM FLOW CHARACTERISTICS REPORT

MEMORANDUM

TO: Jeremy "Todd" Franklin

FROM: Brian Baker

DATE: August 22, 2006

RE: Stream Flow Characteristics for Mississippi River, the receiving stream for Vidalia Waste Water Treatment Plant (Permit No. LA0032794, AI: 30293)

Determinations of water quality characteristics were taken from ambient monitoring station No. 317, located midstream of the Mississippi River at Lake Providence, Louisiana.

The average hardness and 15th percentile TSS is as follows:

Average hardness	=	157.3 mg/l
15th percentile TSS	=	41.8 mg/l

Based on the receiving stream information the critical flow (7Q10) is 141,955 CFS and the harmonic mean flow is 366,748 CFS.

If you have additional questions or comments, please contact me at 219-3466.

BB: bmb

WQBL CALCULATIONS

WQBL CALCULATIONS FOR THE TOWN OF VIDALIA WWTF LA0032794, AI 30293

DESIGN CAPACITY (Q_e): **1.5 MGD**
CRITICAL LOW FLOW (7Q10): **141,955 cfs.**
HARDNESS VALUE: **157.3 mg/L**
FIFTEENTH PERCENTILE VALUE FOR TSS: **41.8 mg/L**

PRIORITY POLLUTANT: **LEAD**

- Cu (Acute) $= e^{(1.2730\,[\ln(\text{hardness})] - 1.4600} \text{ X CF}$
  $= e^{(1.2730\,[\ln 157.3] - 1.4600} \text{ X } 0.892$
  $= e^{(1.2730)(5.05815481) - 1.4600} \text{ X } 0.892$
  $= e^{4.979031073} \text{ X } 0.892$
  $= 145.3334959 \text{ X } 0.892$
  $=$ **$129.6374783 = 129.63\ \mu g/L$**

- Cu (Chronic) $= e^{(1.2730\,[\ln(\text{hardness})] - 4.7050} \text{ X CF}$
  $= e^{(1.2730\,[\ln 157.3] - 4.7050} \text{ X } 0.892$
  $= e^{(1.2730)(5.05815481) - 4.7050} \text{ X } 0.892$
  $= e^{1.734031073} \text{ X } 0.892$
  $= 5.663437687 \text{ X } 0.892$
  $=$ **$5.051786417 = 5.05\ \mu g/L$**

DISSOLVED TO TOTAL METAL CONVERSION

$$\frac{C_D}{C_T} = \frac{1}{1 + (K_p)(TSS)(10^{-6})} \qquad K_p = K_{po} \text{ X } TSS^{\alpha}$$

$$K_p = 2.80 \text{ X } 10^6 \text{ X } 41.8^{(-0.8)}$$

$$= \mathbf{141324.353}$$

$$\frac{C_D}{C_T} = \frac{1}{1 + (141324.353)(41.8)(10^{-6})}$$

$$= \frac{1}{6.907357955}$$

$$= 0.144773154 = \mathbf{0.145}$$

$$\frac{\textbf{TOTAL}}{\textbf{DISSOLVED}} = \frac{C_T}{C_D} = \mathbf{6.907357955}$$

	DISSOLVED	X	C_T / C_D	=	TOTAL
Acute Criteria	129.63 µg/L	X	6.91	=	**895.74 µg/L**
Chronic Criteria	5.05 µg/L	X	6.91	=	**34.90 µg/L**
Human Health$_{nc}$	1000 µg/L	X	6.91	=	**6910 µg/L**

DILUTION

	DISSOLVED	TOTAL
ACUTE	129.63 µg/L	895.74 µg/L
CHRONIC	5.05 µg/L	34.90 µg/L
HUMAN HEALTH	1000 µg/L	6910 µg/L

DILUTION CALCULATIONS

$$\text{DILUTION FACTOR} = \frac{Q_e}{Q_r \times F_s + Q_e}$$

- ZID (ACUTE) = $\dfrac{1.5 \text{ MGD}}{(141955 \text{ cfs})(0.6463 \text{ MGD/cfs})(0.033 \text{ cfs}) + 1.5 \text{ MGD}}$ = **0.000495196 = 0.00050**

- MZ (CHRONIC) = $\dfrac{1.5 \text{ MGD}}{(141955 \text{ cfs})(0.6463 \text{ MGD/cfs})(0.33 \text{ cfs}) + 1.5 \text{ MGD}}$ = **0.0000495417 =0.00005**

- HH (HUMAN HEALTH) = $\dfrac{1.5 \text{ MGD}}{(141955 \text{ cfs})(0.6463 \text{ MGD/cfs})(1 \text{ cfs}) + 1.5 \text{ MGD}}$ = **0.000016**

CONCLUDE THAT:

0.050% of effluent at edge of ZID
0.0050% of effluent at edge of MZ
0.0016% of effluent at edge of HH$_{nc}$

WASTELOAD ALLOCATION CALCULATIONS

$$WLA = \frac{C_r}{\text{Dilution}} = \frac{F_s \times C_r \times C_u}{Q_e} \qquad C_u = 0$$

- WLA_{ZID} (ACUTE) = $\frac{895.74\ \mu g/L}{0.00050}$ = **1791480 µg/L**

- WLA_{MZ} (CHRONIC) = $\frac{34.90\ \mu g/L}{0.000050}$ = **698000 µg/L**

- WLA_{HH} (HUMAN HEALTH) = $\frac{6910\ \mu g/L}{0.000016}$ = **431875000 µg/L**

LTA CALCULATIONS

- LTA_{ZID} (ACUTE) = WLA_{ZID} X 0.32
  = 1791480 µg/L X 0.32 = **573273.6 µg/L**

- LTA_{MZ} (CHRONIC) = WLA_{MZ} X 0.53
  = 698000 µg/L X 0.53 = **369940 µg/L**

- LTA_{HH} (HUMAN HEALTH) = WLA_{HH} X 1
  = 431875000 µg/L X 1 = **431875000 µg/L**

WQBL CALCULATIONS

LIMITING LTA = 369940 µg/l

- MONTHLY AVERAGE = LIMITING LTA X 1.31
  = 369640 µg/L X 1.31
  = 484621.4 µg/L
  = 484.6214 mg/L X 1.5 MGD X 8.34 lbs/day = **6062.6 lbs/day**

- DAILY MAXIMUM = LIMITING LTA X 3.11
  = 369640 µg/L X 3.11
  = 1149580.4 µg/L
  = 1149.5804 mg/L X 1.5 MGD X 8.34 lbs/day = **14381.3 lbs/day**

BIOMONITORING REQUIREMENTS

BIOMONITORING FREQUENCY RECOMMENDATION AND RATIONALE FOR ADDITIONAL REQUIREMENTS

Permit Number: **LA0032794**
Facility Name: **Town of Vidalia Wastewater Treatment Facility**
Previous Critical Dilution: **0.0490%** Proposed Critical Dilution: **0.05% (10:1 ACR)**
Date of Review: **08/24/2006** Name of Reviewer: **Laura Keen**

Recommended Frequency by Species:

***Pimephales promelas* (Fathead minnow): Once/Year[1]**
***Daphnia pulex* (water flea): Once/Year[1]**

Recommended Dilution Series: **0.02%, 0.03%, 0.04%, 0.05%, and 0.07%**

Number of Tests Performed during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow): 4**
***Daphnia pulex* (water flea): 4**
***Daphnia magna* (water flea): N/A – Testing of species was not required**
***Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required**

Number of Failed Tests during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow): No failures on file during the past 5 years**
***Daphnia pulex* (water flea): No failures on file during the past 5 years**
***Daphnia magna* (water flea): N/A – Testing of species was not required**
***Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required**

Failed Test Dates during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow): No failures on file during the past 5 years**
***Daphnia pulex* (water flea): No failures on file during the past 5 years**
***Daphnia magna* (water flea): N/A – Testing of species was not required**
***Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required**

Previous TRE Activities: **N/A – No previous TRE Activities**

Additional Requirements (including WET Limits) Rationale / Comments Concerning Permitting:

Town of Vidalia owns and operates a sewerage treatment lagoon in Vidalia, Concordia Parish, Louisiana. LPDES Permit LA0032794, effective January 1, 2002 contained freshwater acute biomonitoring as an effluent characteristic of Outfall 001 for *Daphnia pulex* and *Pimephales promelas*. The effluent series consisted of 0.0207%, 0.0276%, 0.0368%, 0.0490%, and 0.0650% concentrations, with the 0.0490% effluent

[1] An acute critical dilution of less than 1% shall have an established monitoring frequency of once per year.

concentration being defined as the critical dilution. The testing was to be performed yearly for *Daphnia pulex* and *Pimephales promelas.* Data on file indicate that the permittee has complied with the biomonitoring requirements contained in LA0032794 with no failures from a toxicity test in the last five years. As per correspondence from the permittee dated January 21, 2005, the Town of Vidalia overlooked annual toxicity testing requirements for 2004 and planned to make up the biomonitoring test in January, 2005. A review of LDEQ's records show that only one test was performed in 2005.

It is recommended that freshwater acute biomonitoring continue to be an effluent characteristic of Outfall 001 (discharge of 1.5 MGD of treated sanitary wastewater,) in LA0032794. The effluent dilution series shall be 0.02%, 0.03%, 0.04%, 0.05%, and 0.07% concentrations, with the 0.07% effluent concentration being defined as the critical dilution (the 10:1 Acute-to-Chronic ratio has been implemented because the critical dilution is less than 5%). Since the proposed critical dilution is less than 1% (10:1 ACR), the biomonitoring frequency shall be once per year for *Daphnia pulex* and *Pimephales promelas.*

This recommendation is in accordance with the LDEQ/OES Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, EPA Region 6 Post-Third Round Whole Effluent Toxicity Testing Frequencies (Revised June 30, 2000), and the Best Professional Judgement (BPJ) of the reviewer.

PRETREATMENT REQUIREMENTS

PRETREATMENT EVALUATION AND RECOMMENDATION

FACILIITY NAME: *Town of Vidalia WWTP*

CITY: *Vidalia*

PARISH: *Concordia*

PERMIT #: *LA0032794*

DESIGN FLOW: *1.5 MGD*

ACTUAL FLOW: *0.8 MGD*

OTHER POTWs IN SYSTEM: *none*

SIGNIFICANT INDUSTRIES LISTED IN MANUFACTURERS GUIDE:

Industry Name	Type of Industry	Direct or Indirect Discharger
Aquaculture News	Newspaper publishing	Indirect [1]
Crofford Welding and Mch. Works	Machine shop: arc, gas, MIG and TIG welding; general machining, cutting, drilling, boring, lathe and mill work	N/A [2]
Engelhard Corporation – Vidalia Works	Manufactures inorganic chemicals: activated alumina	Both [3]

STANDARD LANGUAGE RECOMMENDATION AND JUSTIFICATION:

Due to the absence of pretreatment categorical standards for the indirect discharges listed above or the discharge is of sanitary wastewater only, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0032794.

This language is established for municipalities that do not have either an approved or required Pretreatment program. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61 and the Best Professional Judgement (BPJ) of the reviewer.

[1] The discharge is sanitary wastewater only.
[2] This facility is not connected to the POTW.
[3] Stormwater discharges from this facility are regulated under LDEQ Multi-Sector General Stormwater Permit LAR05N702. Sanitary wastewater and wastewater from the kitchen discharge to the POTW.

Melissa Reboul – 8/25/2006

Invoice No._____

LOUISIANA WATER POLLUTION CONTROL FEE SYSTEM
RATING WORKSHEET
PERMIT NO: LA0032794; AI 30293; PER20060001

1 a. Company Name: Town of Vidalia
b. Facility Name: Wastewater Treatment Plant

2. Local Mailing Address: Post Office Box 2010
Vidalia, LA 71373

3. Billing Address (If different):

4. Facility Location: on Logan Sewell Drive at the Vidalia Drainage Canal in Vidalia
a. Parish: Concordia

5. Facility Type: publicly owned treatment works

a. Treatment Process Used: flow-through, waste stabilization pond with 3 cells and chlorine disinfection

6. Products Produced:
a. Raw materials stored or used:
b. By-products produced:

7. Primary SIC Code: 4952
a. Other SIC Codes:

8. Fac. Manager: Mark Morace
a. Telephone: (318) 336-6257

9. Owner:
a. Telephone:

10. Env. Contact: C. Keith Capdepon, Jr.
a. Telephone: (318) 757-6576

11. State Permit No.: LA0032794	12. NPDES Permit No.
a. Date Issued: January 1, 2002	a. Effective Date:
b. New: Modified:	b. Expiration Date:

13. Number and Identification of Outfalls: One, 001

14. Number of Injection Wells:

15. Water Source(s):

16. Receiving Water(s): Mississippi River

Is receiving water:

a. Public Water Supply Yes ( ) No (X)
b. Designated Water Quality Limited Yes ( ) No (X)
c. In Compliance with Water Quality Standards Yes (X) No ( )

17. River Basin: Mississippi River

18. Basin Segment No. 070101
Federal Tax I. D. No.: 72-6001447
Initials of Rater: jtf

TOTAL RATING POINTS ASSIGNED 53.0

Invoice No._____

ANNUAL FEE RATING WORKSHEET - MUNICIPAL
PERMIT NO: LA0032794; AI 30293 ; PER20060001

1. FACILITY COMPLEXITY DESIGNATION

Primary SIC 4952

Complexity Designation =

X	I	(0 points)
	II	(10 points)
	III	(20 points)
	IV	(30 points)
	V	(40 points)
	VI	(50 points)

COMPLEXITY DESIGNATION POINTS 0

2. FLOW VOLUME AND TYPE

A. Wastewater Type I

Is total Daily Average Discharge greater than 60 mgd?

_____Yes, then points = 200

_____No, then

Points = 0.5 X Total Daily Average Discharge (mgd)

Points = 0.5 X _____ =

Total points =

B. Wastewater Type II

Is total Daily Average Discharge greater than 5 mgd?

____Yes, then points= 50

___ No, then

Points = 10 X Total Daily Average Discharge (mgd)

Points = 10 X _____ =

Total points =

C. Wastewater Type III

Is total Daily Average Discharge greater than 25 mgd?

____Yes, then points= 50

_X_ No, then

Points = 2 X Total Daily Average Discharge (mgd)

Points = 2 X 1.5 = 3.0

Total points = 3.0

FLOW VOLUME AND TYPE POINTS 3.0

3. POLLUTANTS

A. BOD_5

Daily Average Load =

8.34 lb/gal x 1.5 MGD x 30 mg/l = 375 lb/day

_____	≤ 50 lb/day	(0 points)
X	> 50 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 3000	(20 points)
_____	> 3000 - 5000	(30 points)
_____	> 5000 lb/day	(40 points)

COD or

Daily Average Load =

_____	≤ 100 lb/day	(0 points)
_____	> 100 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(40 points)

BOD OR COD DEMAND POINTS 5
(whichever is greater)

Invoice No._____

ANNUAL FEE RATING WORKSHEET - MUNICIPAL
PERMIT NO: LA0032794; AI 30293; PER20060001

B. TSS
Daily Average Load =

8.34 lb/gal x 1.5 MGD x 90 mg/l = 1,126 lb/day

_____	≤ 100 lb/day	(0 points)
_____	> 100 - 500	(5 points)
_____	> 500 - 1000	(10 points)
X	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(40 points)

TSS POINTS 20

C. AMMONIA
Daily Average Load =

_____	≤ 200 lb/day	(0 points)
_____	> 200 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10,000 lb/day	(40 points)

AMMONIA POINTS N/A

TOTAL POLLUTANT POINTS 25

4. TEMPERATURE (HEAT LOAD)
Heat Load = Average Summer flow (mgd) X ^T X 0.00834
where ^T = Permit Limit (Max. Temp.) -70°
Heat Load = _____(mgd) X _____ X 0.00834 = _____Billion BTU
Heat Load =

_____	≤ 4 billion BTU	(0 points)
_____	> 4-20 billion BTU	(5 points)
_____	> 20-100 billion BTU	(10 points)
_____	> 100-200 billion BTU	(15 points)
_____	> 200 billion BTU	(20 points)

HEAT LOAD POINTS N/A

5. POTENTIAL PUBLIC HEALTH IMPACTS
Is the receiving water to which the wastewater is discharged or a water body to which it is a tributary used as a drinking water supply source within 50 miles downstream?
X No (0 points)
_____Yes, then . . . Complexity Designation

_____	I, II	(0 points)
_____	III	(5 points)
_____	IV	(10 points)
_____	V	(20 points)
_____	VI	(30 points)

POTENTIAL PUBLIC HEALTH IMPACT POINTS 0

6. MAJOR/MINOR FACILITY DESIGNATION
Has your facility been designated a Major Facility by the administrative authority?
X Yes, then Points = 25
_____No, then

Were effluent limitations assigned to the discharge based on water quality factors in the receiving stream?
_____No, then Points = 0
_____Yes, then Points = 5

TOTAL MAJOR/MINOR POINTS 25

TOTAL RATING POINTS ASSIGNED 53.0

Invoice No._____

LOUISIANA WATER POLLUTION CONTROL FEE SYSTEM
RATING WORKSHEET
PERMIT NO: LA0032794; AI 30293; PER20060001

1 a. Company Name: Town of Vidalia
b. Facility Name: Wastewater Treatment Plant

2. Local Mailing Address: Post Office Box 2010
Vidalia, LA 71373

3. Billing Address (If different):

4. Facility Location: on Logan Sewell Drive at the Vidalia Drainage Canal in Vidalia
a. Parish: Concordia

5. Facility Type: publicly owned treatment works

a. Treatment Process Used: flow-through, waste stabilization pond with 3 cells and chlorine disinfection

6. Products Produced:
a. Raw materials stored or used:
b. By-products produced:

7. Primary SIC Code: 4952
a. Other SIC Codes:

8. Fac. Manager: Mark Morace
a. Telephone: (318) 336-6257

9. Owner:
a. Telephone:

10. Env. Contact: C. Keith Capdepon, Jr.
a. Telephone: (318) 757-6576

11. State Permit No.: LA0032794	12. NPDES Permit No.
a. Date Issued: January 1, 2002	a. Effective Date:
b. New: Modified:	b. Expiration Date:

13. Number and Identification of Outfalls: One, 001

14. Number of Injection Wells:

15. Water Source(s):

16. Receiving Water(s): Mississippi River

Is receiving water:

a. Public Water Supply Yes ( ) No (X)
b. Designated Water Quality Limited Yes ( ) No (X)
c. In Compliance with Water Quality Standards Yes (X) No ( )

17. River Basin: Mississippi River

18. Basin Segment No. 070101
Federal Tax I. D. No.: 72-6001447
Initials of Rater: jtf

TOTAL RATING POINTS ASSIGNED 53.0

Invoice No._____ **ANNUAL FEE RATING WORKSHEET - MUNICIPAL** Page 2
PERMIT NO: LA0032794; AI 30293 ; PER20060001

1. FACILITY COMPLEXITY DESIGNATION

Primary SIC 4952

Complexity Designation =

X	I	(0 points)
	II	(10 points)
	III	(20 points)
	IV	(30 points)
	V	(40 points)
	VI	(50 points)

COMPLEXITY DESIGNATION POINTS 0

2. FLOW VOLUME AND TYPE

A. Wastewater Type I

Is total Daily Average Discharge greater than 60 mgd?

_____Yes, then points = 200

_____No, then

Points = 0.5 X Total Daily Average Discharge (mgd)

Points = 0.5 X _____ =

Total points =

B. Wastewater Type II

Is total Daily Average Discharge greater than 5 mgd?

____Yes, then points= 50

___ No, then

Points = 10 X Total Daily Average Discharge (mgd)

Points = 10 X _____ =

Total points =

C. Wastewater Type III

Is total Daily Average Discharge greater than 25 mgd?

____Yes, then points= 50

__X__ No, then

Points = 2 X Total Daily Average Discharge (mgd)

Points = 2 X 1.5 = 3.0

Total points = 3.0

FLOW VOLUME AND TYPE POINTS 3.0

3. POLLUTANTS

A. BOD_5

Daily Average Load =

8.34 lb/gal x 1.5 MGD x
30 mg/l = 375 lb/day

_____	≤ 50 lb/day	(0 points)
X	> 50 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 3000	(20 points)
_____	> 3000 - 5000	(30 points)
_____	> 5000 lb/day	(40 points)

COD or
Daily Average Load =

_____	≤ 100 lb/day	(0 points)
_____	> 100 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(40 points)

BOD OR COD DEMAND POINTS 5
(whichever is greater)

B. TSS
Daily Average Load =

8.34 lb/gal x 1.5 MGD x 90 mg/l = 1,126 lb/day

_____	≤ 100 lb/day	(0 points)
_____	> 100 - 500	(5 points)
_____	> 500 - 1000	(10 points)
X	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(40 points)

TSS POINTS 20

C. AMMONIA
Daily Average Load =

_____	≤ 200 lb/day	(0 points)
_____	> 200 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10,000 lb/day	(40 points)

AMMONIA POINTS N/A

TOTAL POLLUTANT POINTS 25

4. TEMPERATURE (HEAT LOAD)
Heat Load = Average Summer flow (mgd) X °T X 0.00834
where °T = Permit Limit (Max. Temp.) -70°
Heat Load = _____(mgd) X _____ X 0.00834 = _____Billion BTU
Heat Load =

_____	≤ 4 billion BTU	(0 points)
_____	> 4-20 billion BTU	(5 points)
_____	> 20-100 billion BTU	(10 points)
_____	> 100-200 billion BTU	(15 points)
_____	> 200 billion BTU	(20 points)

HEAT LOAD POINTS N/A

5. POTENTIAL PUBLIC HEALTH IMPACTS
Is the receiving water to which the wastewater is discharged or a water body to which it is a tributary used as a drinking water supply source within 50 miles downstream?
X No (0 points)
_____Yes, then . . . Complexity Designation

_____	I, II	(0 points)
_____	III	(5 points)
_____	IV	(10 points)
_____	V	(20 points)
_____	VI	(30 points)

POTENTIAL PUBLIC HEALTH IMPACT POINTS 0

6. MAJOR/MINOR FACILITY DESIGNATION
Has your facility been designated a Major Facility by the administrative authority?
X Yes, then Points = 25
_____No, then

Were effluent limitations assigned to the discharge based on water quality factors in the receiving stream?
_____No, then Points = 0
_____Yes, then Points = 5

TOTAL MAJOR/MINOR POINTS 25

TOTAL RATING POINTS ASSIGNED 53.0

Invoice No._____

LOUISIANA WATER POLLUTION CONTROL FEE SYSTEM
RATING WORKSHEET
PERMIT NO: LA0032794; AI 30293; PER20060001

1 a. Company Name: Town of Vidalia
b. Facility Name: Wastewater Treatment Plant

2. Local Mailing Address: Post Office Box 2010
Vidalia, LA 71373

3. Billing Address (If different):

4. Facility Location: on Logan Sewell Drive at the Vidalia Drainage Canal in Vidalia
a. Parish: Concordia

5. Facility Type: publicly owned treatment works

a. Treatment Process Used: flow-through, waste stabilization pond with 3 cells and chlorine disinfection

6. Products Produced:
a. Raw materials stored or used:
b. By-products produced:

7. Primary SIC Code: 4952
a. Other SIC Codes:

8. Fac. Manager: Mark Morace
a. Telephone: (318) 336-6257

9. Owner:
a. Telephone:

10. Env. Contact: C. Keith Capdepon, Jr.
a. Telephone: (318) 757-6576

11. State Permit No.: LA0032794	12. NPDES Permit No.
a. Date Issued: January 1, 2002	a. Effective Date:
b. New: Modified:	b. Expiration Date:

13. Number and Identification of Outfalls: One, 001

14. Number of Injection Wells:

15. Water Source(s):

16. Receiving Water(s): Mississippi River

Is receiving water:

a. Public Water Supply Yes ( ) No (X)
b. Designated Water Quality Limited Yes ( ) No (X)
c. In Compliance with Water Quality Standards Yes (X) No ( )

17. River Basin: Mississippi River

18. Basin Segment No. 070101
Federal Tax I. D. No.: 72-6001447
Initials of Rater: jtf

TOTAL RATING POINTS ASSIGNED 53.0

B. TSS
Daily Average Load =

8.34 lb/gal x 1.5 MGD x 90 mg/l = 1,126 lb/day

_____	≤ 100 lb/day	(0 points)
_____	> 100 - 500	(5 points)
_____	> 500 - 1000	(10 points)
X	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(40 points)

TSS POINTS 20

C. AMMONIA
Daily Average Load =

_____	≤ 200 lb/day	(0 points)
_____	> 200 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10,000 lb/day	(40 points)

AMMONIA POINTS N/A

TOTAL POLLUTANT POINTS 25

4. TEMPERATURE (HEAT LOAD)
Heat Load = Average Summer flow (mgd) X °T X 0.00834
where °T = Permit Limit (Max. Temp.) -70°
Heat Load = _____(mgd) X _____ X 0.00834 = _____Billion BTU
Heat Load =

_____	≤ 4 billion BTU	(0 points)
_____	> 4-20 billion BTU	(5 points)
_____	> 20-100 billion BTU	(10 points)
_____	> 100-200 billion BTU	(15 points)
_____	> 200 billion BTU	(20 points)

HEAT LOAD POINTS N/A

5. POTENTIAL PUBLIC HEALTH IMPACTS
Is the receiving water to which the wastewater is discharged or a water body to which it is a tributary used as a drinking water supply source within 50 miles downstream?
X No (0 points)
_____Yes, then . . . Complexity Designation

_____	I, II	(0 points)
_____	III	(5 points)
_____	IV	(10 points)
_____	V	(20 points)
_____	VI	(30 points)

POTENTIAL PUBLIC HEALTH IMPACT POINTS 0

6. MAJOR/MINOR FACILITY DESIGNATION
Has your facility been designated a Major Facility by the administrative authority?
X Yes, then Points = 25
_____No, then

Were effluent limitations assigned to the discharge based on water quality factors in the receiving stream?
_____No, then Points = 0
_____Yes, then Points = 5

TOTAL MAJOR/MINOR POINTS 25

TOTAL RATING POINTS ASSIGNED 53.0